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THE SEMIANNUAL MONETARY POLICY REPORT TO THE CONGRESS

HEARING

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

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SECOND SESSION

ON

THE FEDERAL RESERVE SYSTEM'S SEMIANNUAL MONETARY POLICY REPORT TO THE CONGRESS

FEBRUARY 27, 2014

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C O N T E N T S

THURSDAY, FEBRUARY 27, 2014

THE SEMIANNUAL MONETARY POLICY REPORT TO THE CONGRESS

THURSDAY, FEBRUARY 27, 2014

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Committee met at 10:04 a.m., in room SD–538, Dirksen Senate Office Building, Hon. Tim Johnson, Chairman of the Committee, presiding.

OPENING STATEMENT OF CHAIRMAN TIM JOHNSON

Chairman JOHNSON. I call this hearing to order. We welcome Dr. Janet Yellen as Chair to deliver the Federal Reserve's semiannual Monetary Policy Report. Chair Yellen, I would like to congratulate you on your nomination and confirmation. In fact, this month's hearings are historic—the first time that a woman is delivering the Fed's semiannual Report to Congress.

Chair Yellen, you have a lot of important issues to focus on as Chair, including continued implementation of Wall Street Reform, establishing policies to improve financial stability and reduce systemic risk, and providing appropriate monetary policy to support our economy. Overall, I am encouraged by the recent improvements in the economy. It appears that economic growth is picking up, and many mainstream economists expect stronger growth this year. This is good news.

However, I am concerned that the economic recovery is not being felt by every American. Too many cities and towns across America have not fully recovered from the Great Recession and continue to struggle. Long-term unemployment remains historically high, and we see recent college graduates, many of whom are burdened by high student loan debt, have a tough time finding work. Income inequality is becoming more severe, and more families are being squeezed out of the middle class. As such, and while inflation remains weak, I caution the Fed not to move too quickly to exit from its current policies until we are on solid footing and the recovery is more widespread.

While the Fed's policies have helped the recovery, the Fed can only do so much. Congress needs to act to ensure that the recovery is more widespread and that generations of Americans are not shut out of economic opportunity. We cannot solve our fiscal problems by imposing immediate and arbitrary cuts, and we need to invest in the economy today to ensure future prosperity. It is important we implement policies that work alongside monetary policy to help get more Americans back to work.

Chair Yellen, I look forward to hearing your thoughts on the decision to taper asset purchases, how recent Fed actions are affecting the economy, and where the economy is heading.

I now turn to Ranking Member Crapo for his opening statement.

STATEMENT OF SENATOR MIKE CRAPO

Senator CRAPO. Thank you, Mr. Chairman, and welcome also, Chair Yellen, on your first appearance before this Committee as the Chair of the Federal Reserve Board of Governors.

Today's hearing is an important opportunity to examine the current state of monetary policy. Since your confirmation hearing in November, the Fed has begun the process of tapering its quantitative easing purchases. The pace of quantitative easing purchases has come down by $20 billion. This is a welcome development for those of us who disagree with the Federal Reserve's quantitative easing policy and prefer to see QE purchases end entirely later this year.

By the time the Fed stops expanding its balance sheet, it will hold well over $4 trillion in Treasury and mortgage-backed securities. Former Chairman Bernanke and others have suggested that the Fed might maintain the expanded size of the balance sheet for some time rather than promptly reducing it. This would mean that the reserves created on the Bank's balance sheets to purchase those assets would remain in the financial system. Richmond Fed President Jeffrey Lacker has called these high excess reserves "tinder on the books of the banking system." The Fed will have to be vigilant to ensure that the tools they have identified to manage the wind-down are sufficient to prevent market disruptions.

These unconventional monetary policy tools have, in my opinion, failed to produce the promised benefits as noted economists recently observed that over the last 4 years the share of adults who are working has not increased and GDP has fallen further behind potential as we would have defined it in the fall of 2009. All that is to say that, despite unprecedented amounts of monetary intervention and record low interest rates, businesses have not responded by hiring new workers.

Dr. Yellen, in your confirmation hearing, you commented on the need to monitor the costs and risks to financial stability that current monetary policy creates. You also stated that you believe monetary policy is most effective when the public understands what the Fed is trying to do and how it plans to do it.

I appreciate your commitment to openness and transparency. I look forward to your thoughts as to how the Fed will manage a return to normalized monetary policy and how you will communicate that transition to the public.

I also look forward to learning more about your perspective on the implementation of the Dodd-Frank Act and how different rules interact with each other and their impact on the economy at large. Because of the size and complexity of these rules, it is paramount that the regulators strike the right balance without unduly harming the economy. This was evident most recently in December with the final Volcker rule and its unintended and disproportionate effect on community banks with respect to their holdings of trust preferred collateral debt obligations.

The economic impact of the recently finalized Fed rule that imposed heightened capital requirements on foreign banks doing business in the United States is yet to be seen. Earlier reports indicate that some foreign banks are moving their assets outside the United States, taking their market activities to friendlier jurisdictions.

As you continue with the rulemaking process, I encourage you to do so without placing the U.S. markets at a competitive disadvantage or putting out of business smaller firms that are no threat to our financial security. I certainly hope that you will work with Congress to identify statutory ambiguities in Dodd-Frank that prevent the Fed from doing the right thing.

And, lastly, we still have the Government conservatorship of Fannie Mae and Freddie Mac, which will create a long-term market distortion in this crucial segment of the U.S. economy. I look forward to hearing your thoughts on the need for this reform and bringing this 5-year ordeal to a close.

Again, welcome, Chair Yellen, and I look forward to your testimony.

Chairman JOHNSON. Thank you, Senator Crapo.

To preserve time for questions, opening statements will be limited to the Chair and Ranking Member.

I would like to remind my colleagues that the record will be open for the next 7 days for additional statements and other materials.

I would like to welcome Chair Yellen. Dr. Yellen is serving her first term as Chair of the Board of Governors of the Federal Reserve System. She was sworn into office earlier this month. Before that, Dr. Yellen served as Vice Chair and Member of the Board of Governors of the Federal Reserve System. She was also previously Chair of the Council of Economic Advisers.

Chair Yellen, please begin your testimony.

STATEMENT OF JANET L. YELLEN, CHAIR, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Ms. YELLEN. Chairman Johnson, Senator Crapo, and other members of the Committee, I am pleased to present the Federal Reserve's semiannual Monetary Policy Report to the Congress. In my remarks today, I will discuss the current economic situation and outlook before turning to monetary policy. I will conclude with an update on our continuing work on regulatory reform.

First, let me acknowledge the important contributions of Chairman Bernanke. His leadership helped make our economy and financial system stronger and ensured that the Federal Reserve is transparent and accountable. I pledge to continue that work.

The economic recovery gained greater traction in the second half of last year. Real gross domestic product is currently estimated to have risen at an average annual rate of more than 3½ percent in the third and fourth quarters, up from a 1¾ percent pace in the first half. The pickup in economic activity has fueled further progress in the labor market. About 1–¼ million jobs have been added to payrolls since the previous Monetary Policy Report last July, and 3¼ million have been added since August 2012, the month before the Federal Reserve began a new round of asset purchases to add momentum to the recovery. The unemployment rate has fallen nearly a percentage point since the middle of last year

and 1 ½ percentage points since the beginning of the current asset purchase program. Nevertheless, the recovery in the labor market is far from complete. The unemployment rate is still well above levels that the Federal Open Market Committee participants estimate is consistent with maximum sustainable employment. Those out of a job for more than 6 months continue to make up an unusually large fraction of the unemployed, and the number of people who are working part-time but would prefer a full-time job remains very high. These observations underscore the importance of considering more than the unemployment rate when evaluating the condition of the U.S. labor market.

Among major components of GDP, household and business spending growth stepped up during the second half of last year. Early in 2013, growth in consumer spending was restrained by changes in fiscal policy. As this restraint abated during the second half of the year, household spending accelerated, supported by job gains and by rising home values and equity prices. Similarly, growth in business investment started off slowly last year, but then picked up during the second half, reflecting improved sales prospects, greater confidence, and still favorable financing conditions. In contrast, the recovery in the housing sector slowed in the wake of last year's increase in mortgage rates.

Inflation remained low as the economy picked up strength, with both the headline and core personal consumption expenditures, or PCE, price indexes rising only about 1 percent last year, well below the Federal Open Market Committee's 2-percent objective for inflation over the longer run. Some of the recent softness reflects factors that seem likely to prove transitory, including falling prices for crude oil and declines in non-oil import prices.

My colleagues on the FOMC and I anticipate that economic activity and employment will expand at a moderate pace this year and next, the unemployment rate will continue to decline toward its longer-run sustainable level, and inflation will move back toward 2 percent over coming years. We have been watching closely the recent volatility in global financial markets. Our sense is that at this stage these developments do not pose a substantial risk to the U.S. economic outlook. We will, of course, continue to monitor the situation.

Mr. Chairman, let me add as an aside that, since my appearance before the House Committee, a number of data releases have pointed to softer spending than many analysts had expected. Part of that softness may reflect adverse weather conditions, but at this point, it is difficult to discern exactly how much. In the weeks and months ahead, my colleagues and I will be attentive to signals that indicate whether the recovery is progressing in line with our earlier expectations.

Turning to monetary policy, let me emphasize that I expect a great deal of continuity in the FOMC's approach to monetary policy. I served on the Committee as we formulated our current policy strategy, and I strongly support that strategy, which is designed to fulfill the Federal Reserve's statutory mandate of maximum employment and price stability.

Prior to the financial crisis, the FOMC carried out monetary policy by adjusting its target for the Federal funds rate. With that

rate near zero since late 2008, we have relied on two less traditional tools—asset purchases and forward guidance—to help the economy move toward maximum employment and price stability. Both tools put downward pressure on longer-term interest rates and support asset prices. In turn, these more accommodative financial conditions support consumer spending, business investment, and housing construction, adding impetus to the recovery.

Our current program of asset purchases began in September 2012 amid signs that the recovery was weakening and progress in the labor market had slowed. The Committee said that it would continue the program until there was a substantial improvement in the outlook for the labor market in a context of price stability. In mid-2013, the Committee indicated that if progress toward its objectives continued as expected, a moderation in the monthly pace of purchases would likely become appropriate later in the year. In December, the Committee judged that the cumulative progress toward maximum employment and the improvement in the outlook for labor market conditions warranted a modest reduction in the pace of purchases, from $45 billion to $40 billion per month of longer-term Treasury securities and from $40 billion to $35 billion per month of agency mortgage-backed securities. At its January meeting, the Committee decided to make additional reductions of the same magnitude. If incoming information broadly supports the Committee's expectation of ongoing improvement in labor market conditions and inflation moving back toward its longer-run objective, the Committee will likely reduce the pace of asset purchases in further measured steps at future meetings. That said, purchases are not on a preset course, and the Committee's decisions about their pace will remain contingent on its outlook for the labor market and inflation as well as its assessment of the likely efficacy and costs of these purchases.

The Committee has emphasized that a highly accommodative policy will remain appropriate for a considerable time after asset purchases end. In addition, the Committee has said since December 2012 that it expects the current low target range for the Federal funds rate to be appropriate at least as long as the unemployment rate remains above 6 ½ percent, inflation is projected to be no more than a half percentage point above our 2-percent longer-run goal, and longer-term inflation expectations remain well anchored. Crossing one of these thresholds will not automatically prompt an increase in the Federal funds rate, but will instead indicate only that it had become appropriate for the Committee to consider whether the broader economic outlook would justify such an increase. In December of last year and again this January, the Committee said that its current expectations—based on its assessment of a broad range of measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments—is that it likely will be appropriate to maintain the current target range for the Federal funds rate well past the time that the unemployment rate declines below 6 ½ percent, especially if projected inflation continues to run below the 2-percent goal. I am committed to achieving both parts of our dual mandate: helping the economy return to full employment and returning infla-

tion to 2 percent while ensuring that it does not run persistently above or below that level.

I will finish with an update on progress on regulatory reforms and supervisory actions to strengthen the financial system. In October, the Federal Reserve Board proposed a rule to strengthen the liquidity positions of large and internationally active financial institutions. Together with other Federal agencies, the Board also issued a final rule implementing the Volcker rule, which prohibits banking firms from engaging in short-term proprietary trading of certain financial instruments. In addition, we recently finalized the rules implementing enhanced prudential standards, mandated by Section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. On the supervisory front, the next round of annual capital stress tests of the largest 30 bank holding companies is underway, and we expect to report results in March.

Regulatory and supervisory actions, including those that are leading to substantial increases in capital and liquidity in the banking sector, are making our financial system more resilient. Still, important tasks lie ahead. We are working to finalize the proposed rule, strengthening the leverage ratio standards for U.S.-based, systemically important global banks. We expect to issue proposals for a risk-based capital surcharge for those banks as well as for a long-term debt requirement to help ensure that these organizations can be resolved. In addition, we are working to advance proposals on margins for noncleared derivatives, consistent with a new global framework, and are evaluating possible measures to address financial stability risks associated with short-term wholesale funding. We will continue to monitor for emerging risks, including watching carefully to see if the regulatory reforms work as intended.

Since the financial crisis and the depths of the recession, substantial progress has been made in restoring the economy to health and in strengthening the financial system. Still, there is more to do. Too many Americans remain unemployed, inflation remains below our longer-term objective, and the work of making the financial system more robust has not yet been completed. I look forward to working with my colleagues and many others to carry out the important mission you have given the Federal Reserve.

Thank you. I would be pleased to take your questions.

Chairman JOHNSON. Thank you, Chair Yellen.

As we begin questions, I will ask the clerk to put 5 minutes on the clock for each member.

Chair Yellen, with inflation low and unemployment so high, does that give the Fed some room to continue promoting full employment?

Ms. YELLEN. Chairman Johnson, yes, it certainly does give us room to continue promoting full employment, and we have committed to do so and have made clear that we see an accommodative monetary policy as remaining appropriate for quite some time. There is no conflict at all at the moment between the two goals that Congress has assigned to us of promoting maximum employment and price stability. Inflation is running well below our 2-percent target, and as you indicated, that gives us ample scope to con-

tinue to try to promote a return to full employment, and we are committed to doing that.

Chairman JOHNSON. Chair Yellen, what approach is the Fed taking with respect to insurance companies under the new rules implementing Section 165 of Dodd-Frank? How would this interact with rules on capital requirements for insurance companies under the Collins amendment?

Ms. YELLEN. Senator, we are looking very carefully to design an appropriate set of rules for companies with important involvement in insurance. We recognize that there are very significant differences between the business models of insurance companies and the banks that we supervise, and we are taking the time that is necessary to understand those differences and to attempt to craft a set of capital and liquidity requirements that will be appropriate to the business model of insurance companies.

I would say, however, that the Collins amendment does restrict what is possible for the Federal Reserve in designing an appropriate set of rules. So it does pose some constraints on what we can do, and we will do our very best to craft an appropriate set of rules subject to that constraint.

Chairman JOHNSON. In what ways could the FSOC make the SIFI designation process more transparent?

Ms. YELLEN. So on this one, Senator, I would say that I think FSOC really has provided the public with a good deal of information about the criteria that it is using, the general criteria that it has established for attempting to determine whether or not an institution and organization should be designated as a SIFI. And in the cases of those organizations where it has made a designation, it has really provided a wealth of information about those organizations.

There are also opportunities for companies that want to contest designation to have an appeals process, so there is really a well-worked-out process.

Now, as the FSOC goes on to consider other possible firms for designation, if it decides to use a different set of criteria, I think it is completely appropriate that the FSOC should also make clear if new criteria are being used to govern designations.

Chairman JOHNSON. How has the recovery impacted wages and income inequality? And if so, what can Congress do to address this major problem?

Ms. YELLEN. Well, Senator, I think the issues of income inequality, of rising income inequality in this country really date back many decades, probably to the mid-1980s, when we began to see a very substantial widening of wage gaps between more skilled and less skilled workers, and this is a trend that, unfortunately, has continued almost unabated for the last 30 years. Economists have debated exactly what the causes are, but technological change and globalization play a role.

However, I think it is clear that the recession has placed an extremely high toll particularly and special burdens on lower-income workers. Those workers and less educated workers have seen their unemployment rates rise disproportionately during the downturn, and so households and segments of our population that had already

been suffering stagnant or declining incomes for many years have seen the recession take a large toll.

So there really has been a very large burden, and it is our objective to try to get the economy back to full employment to alleviate that portion of the burden. Things like education and training I think are on every economist's list of actions that Congress could take. Early childhood education, training more generally, those things certainly, and others Congress could consider to address these important issues.

Chairman JOHNSON. Senator Crapo.

Senator CRAPO. Thank you, Mr. Chairman. And, Chair Yellen, again, welcome to the Committee.

Ms. YELLEN. Thank you.

Senator CRAPO. I appreciated your comments a couple weeks ago to the House Financial Services Committee when you discussed GSE reform. At that point you said that we still have a system that has systemic risk. Reforming Fannie and Freddie is a priority for this Committee, and I would like to ask you to just take a couple of brief moments to discuss the need to bring private capital back into the market.

Ms. YELLEN. Well, Senator, I strongly support and would urge the Congress to address the issue of GSE reform. We have gotten a mortgage system that in a *de facto* sense remains very highly dependent on Government backing, and it fails to meet the very important objective of successful securitization without systemic risk.

There are a number of different ways in which Congress could proceed with GSE reform, depending on your assessment of appropriate priorities, but in my personal view, it is simply very important for Congress to decide explicitly what the role of the Government should be in housing finance, and there are a lot of possible choices available.

I think in terms of bringing private capital back into the market, we now have a system where almost all mortgages that are being granted in this country have Government backing associated with it, and I think to see private capital return in meaningful amounts to the mortgage industry, clarifying the rules of the road, is important. So I would certainly urge Congress to proceed in this area.

Senator CRAPO. Thank you. I agree with you and appreciate your observations at this point.

As I stated in my opening statement, I am very concerned about Dodd-Frank implementation, and I certainly hope that you will clearly communicate with Congress if there are statutory ambiguities or obstacles that prevent the Fed from doing the right thing when promulgating regulations. And in that context, I would just like to ask if you agree. When Chairman Bernanke was before us last year, I think it was, I asked him this same question. But I would like to know if you agree with him that the areas of the end users, swaps pushouts, and reducing the regulatory burden on community banks are areas in which we need additional statutory attention to getting it right.

Ms. YELLEN. So the three areas that you mentioned are ones that are high on our list of concerns, areas that we are looking at ourselves. And as we design the Dodd-Frank regulations, in all of these areas we are doing our very best to address in these areas

you have mentioned issues that have been raised and that we consider quite appropriate. It makes sense to me that Congress should consider these areas as well. I want to assure you that we will do our best in writing regulations in these areas, however, to address the concerns that have been raised.

Senator CRAPO. Well, thank you, and I appreciate your attention to it. I also believe that you need additional clarification and strength in the statute to do it right, and I hope that we will be able to provide that from Congress.

Next, in numerous hearings last year, it was revealed that we need better international coordination on cross-border issues to ensure that there are no undue interruptions in the financial system. Immediately after the Fed finalized its Section 165 proposal for foreign banking organizations last week, European Commissioner Michel Barnier's office issued a statement that the Fed's rule conflicts with the international standards on cross-border cooperation in bank resolution.

What concrete steps are you taking to ensure effective coordination with your foreign counterparts to create a complementary regulatory regime?

Ms. YELLEN. Well, cooperation with our counterparts globally has been a core part of our approach to strengthening the financial system and putting in place regulations under Dodd-Frank. So we are very actively engaged through the Financial Stability Board, through the Basel Committee, through the relations we have with insurance regulators, attempting to craft regulations in all areas that are consistent globally and that mesh together as a successful system.

In the area of foreign banking organizations in our rule writing which we finalized, I guess the week before last, on Section 165, we faced important tradeoffs. The role of large foreign banking organizations in our capital markets has changed dramatically over the last 20 years. These organizations are among the largest and most systemically important organizations in the U.S. financial system, and we tried to write a set of rules that provide a level playing field for both U.S. organizations and foreign banking organizations doing business in the United States. And the rules that we put in place I believe are really quite similar to what our own banking organizations face when they do business abroad.

So we have tried to construct a set of rules that preserve the opportunity for cross-border international global capital flows. Branches and agencies of foreign banking organizations can continue to operate without separate capital requirements in the United States. But it was important to put in place a set of rules directed to financial stability of our own markets.

Senator CRAPO. Thank you very much.

Chairman JOHNSON. Senator Reed.

Senator REED. Well, thank you very much, Mr. Chairman, and welcome, Madam Chair.

The Open Market Committee has several times made the point that we seem to be operating a cross purposes. As the Federal Reserve is pursuing an expansive monetary policy, we are pursuing a very restricted fiscal policy. It would seem to me that if we were in harmony or complementary, it would be better for the overall

economy. There are several examples. Our current debate about unemployment compensation, most objective observers would suggest that could add anywhere from 180,000 to 200,000 jobs to our economy, and at the same time helping people who need help.

We are in the throes of trying to figure out if we are going to actually fund our highway system after next September, which is, again, another example of how fiscal policy could aid your efforts.

Can you comment on this apparent cross-purpose activity?

Ms. YELLEN. So fiscal policy really has been quite tight and has imposed a substantial drag on spending in the U.S. economy over the last several years. The CBO estimated that last year the fiscal policy drag probably subtracted a percentage point and a half from growth. The drag is likely to lessen substantially during the current year, but nevertheless, there remains some drag.

And, of course, it is true that because there has been fiscal policy drag, the burden on monetary policy has been larger. This is true not only in the United States but in a number of advanced countries in Europe and in Japan as well.

My predecessor has always urged Congress recognizing that there are substantial long-term budget deficit issues and need for a sustainable fiscal path for the country to focus to the maximum extent possible on fiscal changes that would address the longer-run issues that will be associated with a rising debt-to-GDP ratio over decades and to try to avoid doing harm to the recovery. And I would take the same general position.

Senator REED. But in the short run, there is a value of additional fiscal stimulation in the economy that will complement what you are already doing and also make it easier for you to begin to withdraw the quantitative easing. Is that a fair comment?

Ms. YELLEN. Well, I do think the economy is beginning to recover, and we have made progress. And, you know, at a minimum I would hope that fiscal policy would do no harm.

Senator REED. Just one other quick question. You have and your predecessors have looked at an unemployment rate of 6.5 percent as sort of a point of inflection, if you will. But one of the aspects of the current employment situation is that labor force participation is falling, and so that 6.5 percent might not actually capture sort of the reality of the current economy and be an adequate sort of measure when you should begin or how you should begin to undertake fiscal easing—quantitative easing, excuse me.

So are you looking at other ways or looking beyond just the simple unemployment rate to gauge your actions?

Ms. YELLEN. So, Senator, let me first say that 6.5 percent unemployment is not the Committee's definition of what constitutes full employment. The range of views on that among Committee members is substantially lower. The central tendency is, you know, under 6 percent. So 6.5 was simply meant to be the Committee saying, look, if the unemployment rate is above that, we see absolutely no need to consider any possibility of raising rates. Below that, we begin to look more carefully. And as we do so, of course, the unemployment rate is not a sufficient statistic to measure the health of the labor market. An additional 5 percent, an unusually high fraction of our labor force, is working part-time for economic reasons, which means they are unable to get full-time work but want it.

That is an additional 7 million-plus Americans who were involuntarily employed part-time, and we have an unusually high fraction of Americans who were unemployed and have been for substantial amounts of time.

So, you know, as we go to a fuller consideration of how is the labor market performing, we need to take all of those things into account.

Senator REED. Thank you, Madam Chair.

Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Shelby.

Senator SHELBY. Thank you. Thank you, Chairman Yellen, for being here with us, and congratulations.

I want to talk to you a little about the portfolio of the Fed that has been mentioned. I understand it is about $4 trillion at the moment. You have tapered off some, the Fed Board of Governors. You are still buying at the current rate, about 65 billion a month. So at that rate, if you do not taper substantially or stop, you will be getting up toward $5 trillion at the end of the year, or less. Is that correct?

Ms. YELLEN. Well, we are as you say, we are around $4 trillion and continuing to buy——

Senator SHELBY. Now, but you are getting up to $5 trillion at the rate you are buying.

Ms. YELLEN. If we do not continue to taper.

Senator SHELBY. But even if you taper and you continue to buy, like if you taper down from 65 to 50, that is still substantial buying in the market, is it not?

Ms. YELLEN. It is. I mean, we have indicated that if the economy progresses as we anticipate, we expect to continue reducing the pace of purchases in measured steps, which would mean ending completely the purchases winding down and ending some time next fall.

Senator SHELBY. In your portfolio, are there mainly Treasurys and mortgage-backed securities? Is that what the portfolio consists of?

Ms. YELLEN. Yes.

Senator SHELBY. What is the relative ratio of that, one to the other? Relatively, just an educated guess.

Ms. YELLEN. I believe we have a larger quantity of Treasurys than mortgage-backed securities.

Senator SHELBY. Can you furnish that? Do you want to look at it or do you want to furnish that for the record.

Ms. YELLEN. I will be happy to furnish the exact numbers to you for the record.

Senator SHELBY. To unwind a portfolio of that size, which is unprecedented, Chairman Bernanke has told us before that it would be a big challenge. Do you agree with that?

Ms. YELLEN. We do not need to and have no intention of quickly winding down that portfolio.

Senator SHELBY. Will you—is it your plan to keep some of the mortgage-backed securities and Treasurys to maturity?

Ms. YELLEN. So we have indicated that we have no intention of selling mortgage-backed securities. They will—I think when we begin the process of normalizing monetary policy, of wanting to

tighten monetary policy, we will have a look at permitting runoff out of our portfolio as these securities mature. And allowing runoff, we would bring down our portfolio over time.

Senator SHELBY. Slowly.

Ms. YELLEN. Slowly, even without sales. And I think my predecessor has emphasized, and I agree, there is no need to bring down the size of our portfolio in order to tighten monetary policy. We have a range of tools that we can use to raise the level of short-term interest rates at the time that the Committee deems it appropriate to begin to tighten monetary policy conditions. Now, that is a way off, but we continue to develop tools to make sure that we have an arsenal of tools to be able to, as appropriate, tighten conditions and not have to do asset sales or manage our portfolio in any way that would be disruptive to financial markets.

Senator SHELBY. If I can shift now to the regulatory side of your duties here as Chair of the Fed Board of Governors, Basel III is supposed to be in effect, is it not, in 2015? It is 2015?

Ms. YELLEN. I believe——

Senator SHELBY. A lot of them have got to make those adjustments for capital, the flexibility of capital liquidity, so to speak. Is that correct?

Ms. YELLEN. I believe so.

Senator SHELBY. Now, Senator Crapo mentioned the foreign banks and so forth. Will you as a regulator make sure that the foreign banks comply with their capital standards just like our banks have to do if they are doing business in the United States of America?

Ms. YELLEN. Yes, we have said that foreign banking organizations that have over $50 billion in size will have to form intermediate holding companies and to organize their activities other than branch and agency activities in an intermediate holding company that will be subject to the same regulations as U.S.-based banking organizations. That is the essence of the proposal that we finalized 2 weeks ago.

Senator SHELBY. Thank you. My time is up.

Chairman JOHNSON. Senator Schumer.

Senator SCHUMER. Thank you. And thank you, Chair Yellen. You are off to a great start as far as I am concerned.

I just want to make one brief comment. I know that some of my colleagues on the other side of the aisle express amazement that the Fed would take extraordinary measures to boost growth. But if Congress had done more on the fiscal side to deal with the damage the economy suffered, the Fed would not have to do this, and yet some of the very same Senators and Congress Members who block all further needed investments in infrastructure and other things that used to have broad bipartisan support complain that the Fed is doing too much to help the economy, and it is sort of incredulous to me. You do not have to comment on that. But what do they expect you to do? Do they expect you to just stand here and let the economy get even worse, let job growth continue to slow? Fiscal is preferred, but it is not available because people have blocked it.

My question, the first one, relates to tapering on the economy. I know you testified you were surprised—those were your words—

by the data in the jobs reports in December and January, but indicated at the time the Fed had no intention of altering its tapering program, despite the fact that the economy may not be showing the growth you originally anticipated. In your analysis of the data since then, have you seen any trends or additional information that has led you to reconsider slowing or pausing the tapering of the Fed's bond buying?

Ms. YELLEN. Well, Senator as I mentioned in my opening remarks, we have seen quite a bit of soft data over the last month or 6 weeks. It was, you know, the employment report, relatively low, below expectation growth in payrolls, and some of the housing numbers and retail sales and industrial production. So it is really quite a range of data——

Senator SCHUMER. Right.

Ms. YELLEN.——that has been soft recently.

Now, I think it is clear that unseasonably cold weather has played some role in much of that. There are many ways in which weather would have affected these areas. What we need to do and will be doing in the weeks ahead is to try to get a firmer handle on exactly how much of that set of soft data can be explained by weather and what portion, if any, is due to a softer outlook than we would have——

Senator SCHUMER. And if it is not mostly weather, would you consider pausing or changing the rate of tapering?

Ms. YELLEN. So as we have said in our statement—and I would agree—asset purchases are not on a preset course. So if there is a significant change in the outlook, certainly we would be open to reconsidering. But I would not want to jump to conclusions here.

Senator SCHUMER. Understood. My next question talks about some of the qualitative versus quantitative guidance. Fed Reserve President Lockhart said recently, "For the next couple of years, forward guidance may be the lead policy tool, arguably the most potent method we have for influencing financial conditions and economic results."

I appreciate the Fed's use of forward guidance as another tool to influence market conditions, but I would like to get your thoughts on how it can be most effective.

Based on the minutes of the last meeting, it seems the FOMC had significant discussion about revising down the Fed's forward guidance which originally stated it would consider raising interest rates once employment fell below the threshold of 6.5. In your testimony before the House, you indicated earlier this month that the 6.5 threshold would not be the only factor that is taken into account. Policymakers would be looking at what you called a "broad range of data" on labor market, job creation, and other indications. So it seems you are inclined to offer a more qualitative approach rather than the numerical threshold of 6.5.

Given the stated importance of forward guidance, which it is these days more than ever, and the reality that, to be effective, the guidance must be trusted by the market, would you agree with President Bullard who said he would favor discarding numeral thresholds and much more work toward a more qualitative approach which would give you more flexibility and yet still give the markets guidance?

Ms. YELLEN. So there are many different views on our Committee about what the right way is to cast forward guidance, and this is something that we have been debating for a long time and will undoubtedly continue to discuss as the unemployment rate gets closer to this 6.5-percent threshold.

I think we have already clearly indicated—and I emphasized in my testimony—that the unemployment rate is not a sufficient statistic for the state of the labor market. There is no hard and fast rule about what unemployment rate constitutes full employment, and we need to consider a broad range of indicators. Many members of the Committee have emphasized this point, and it is one I agree with. It moves in the direction of qualitative guidance.

On the other hand, we do want to give markets as much of an indication of how we expect to conduct policy as we can. We did provide some additional information in December which we reiterated in January. What we said was that the Committee, based on its full assessment of all of the data on the labor market and inflation pressures and inflation expectations, financial developments, taking all of that into account, we believed that we could only begin to raise our target interest rate well past the time that the unemployment rate has declined below 6.5 percent, and we said that that was true especially if inflation remained low, because an important factor is that inflation is running well below our 2 percent target. So I guess this is qualitative guidance, but I feel that what we provided then was additional information.

Senator SCHUMER. In a sense you moved away from a purely quantitative measure and are moving more toward the qualitative, which I think is a good thing.

Thank you.

Chairman JOHNSON. Senator Corker.

Senator CORKER. Thank you, Mr. Chairman. I was a little surprised at my friend from New York's partisan comments. I can only assume he had too much coffee this morning. But it is good to see you.

Senator SCHUMER. It is a statement of fact about the economy. It is not supposed to be partisan.

Senator CORKER. So, Madam Chairman, since it is a the first, how would you like to be addressed?

Ms. YELLEN. "Madam Chair" is fine or "Chairman" will——

Senator CORKER. OK, Madam Chair. Very good to have you here.

Ms. YELLEN. Thank you.

Senator CORKER. I have met some of the nominees for the Fed Board. You and I talked about that a little bit in the back room, and I want to say that I am impressed, especially I want to make reference to Stanley Fischer. I think you may have had something to do with him being nominated. I think the former Chairman may have had something to do with that. But very impressive person, and I think he is a very good complement to your background. So I am glad that he is being put forth and look forward to him being confirmed.

You and I, when we were having the confirmation hearing, talked a little bit about financial instability in the hearing, and I know there has been a lot of discussion about inflation and con-

cerns, and I know Senator Shelby asked you some questions about quantitative easing.

But we addressed in your confirmation process the concern about markets overheating and long-term zero interest rate policy. Maybe the threat on the front end is not inflation. Maybe it is instability in our financial markets, and I am wondering if you have seen any signs of that, if you have refined any thinking about how you might address that should that occur.

Ms. YELLEN. Senator, I agree that an environment of low rates, low interest rates, especially when it prevails for a long time—and we have had a long period of low interest rates—can give rise to behavior that poses threats to financial stability. And, therefore, we need to be looking at that very carefully, and we are doing so in a very thorough way, I believe.

There are a number of things that we are monitoring: measures of asset prices and whether or not they appear to be diverging from historical norms, namely, it is hard, but trying to spot any asset bubbles, price bubbles that might be emerging.

We are looking at leverage, which buildup in leverage can be very dangerous to the financial system and pose stability risks. We are looking at trends in leverage. We are looking at credit growth to see whether or not that has potentially worrisome trends.

In addition to that, we are looking, particularly through our stress tests, at financial institutions. In a low interest rate environment, we have to worry about whether or not they are appropriately dealing with interest rate risk. We have been looking at that, and, in fact, our current stress test includes a special portion related to interest rate risk.

Senator CORKER. And as you are looking—I am going to run out of time, and our Chairman is very punctual—have you found anything yet that gives you concern? And do you have a tool with a zero interest rate policy to address that, if you do?

Ms. YELLEN. I would say at this stage broadly I do not see concerns, but there are pockets, a few things that we have identified that do concern us. For example, underwriting standards and leveraged lending clearly appear to be deteriorating. We have addressed that with supervisory guidance and special exams, and we will continue to be very vigilant in that area. That is worrisome to us.

There are a few areas within asset price valuations. Broadly speaking, I would not worry, but there are a few areas where I would be concerned. Many people have emphasized farmland is a concern, farmland prices.

So there are a few areas. We have regulatory and supervisory tools. To me, they should be the first line of defense. But I do not rule out monetary policy.

Senator CORKER. And just if I could—thank you very much for that detailed response. We were just in London meeting with regulators there, and I know there is a large concern about Balkanization of our markets, and I know there was some discussion about trying to address that with the EU–U.S. trade agreement. I think now that the Administration is not interested in that, but I just want to raise that as an issue that I think does need to be addressed, and I realize the Fed will take, with Tarullo, a major lead in that.

And let just—the final point. The orderly liquidation title in Title II that was put together, and I think a lot of us worked on it together, and I am proud of that Title II. It is not exactly the way any of us would like for it to be, but one of the things, even though it was orderly liquidation, I think the FDIC realized when they went through the process, these entities are so intertwined, there is really not a way to orderly liquidate. And so instead, they are coming in through single entry to the holding company.

Ms. YELLEN. Yes.

Senator CORKER. One of the things that I think all of us have concern about is making sure, if we are going to use that process—and I think it is sound, personally—that we ensure there is enough debt at the holding company level; otherwise, there will be other kinds of distortions. Where is that right now? And when are we going to come up with a ruling that gives clarity so that we know absolutely we have things in place should a large institution fail?

Ms. YELLEN. So I agree with you that this is extremely important. It is high on our list. We have been working globally with other regulators and looking ourselves at a requirement that holding companies have a minimum amount of long-term debt that would be loss absorbing, that would permit an orderly liquidation. We would need enough long-term debt both to absorb losses and also recapitalize a company in a Title II liquidation. And we are looking to come out with a rule that would require that. We are working with the FDIC on this.

Senator CORKER. Thank you, Mr. Chairman. I hope it is a very large amount of debt held at the holding company level. OK. Thank you.

Ms. YELLEN. I agree with you.

Chairman JOHNSON. Senator Menendez.

Senator MENENDEZ. Thank you, Mr. Chairman.

Madam Chairman, let me ask you, the number of long-term unemployed Americans has continued to go down, but it is still exceptionally high by historical standards, over 3.6 million. As you know, long-term unemployment could have serious consequences for individuals and their families and can permanently impair the growth prospects for our economy if workers are stuck on the sidelines for too long and their skills and networks become out of date.

Do you feel that the Fed's policies have been successful in helping to reduce the number of long-term unemployed Americans? Is there anything more that the Fed can do, or is there congressional action that you might believe is necessary in order to meet that challenge? And is boosting demand the best way to reduce long-term unemployment right now based on our current economic conditions?

Ms. YELLEN. Well, Senator, we are very focused on and concerned about the high level of long-term unemployment. It is really unprecedented to see something like 37 percent of unemployed in long spells.

What can we do? We can try to foster a stronger labor market generally. We do not have tools that are targeted at long-term unemployment. But in taking account of how much slack there is in the labor market and attempting to stimulate demand so that there is more spending, there is more production, and more jobs in the

economy, we have seen long-term unemployment edge down very slowly. It is taking a long time for those people to be reabsorbed into the labor force, but our approach is to foster a stronger recovery and try to get the economy back to full employment, and I think they will see gains.

Senator MENENDEZ. So if increasing demand is part of it, is there anything else that you think that the Congress—maybe not the Fed—should do in order to achieve getting those numbers, historically high numbers down even quicker?

Ms. YELLEN. Well, I think it is also appropriate for Congress to look at what some of the special needs of long-term unemployed are. These are spelled that are very damaging to families, put great burdens on families both in terms of income and even health burdens that—burdens on children and marriages, and so I think it certainly is something that Congress could look at along with us.

Senator MENENDEZ. Is skill sets, helping individuals with their skills sets, something that we should be considering?

Ms. YELLEN. Yes, sometimes the long-term unemployed do need to acquire different skills in order to be reabsorbed into the job market.

Senator MENENDEZ. Now, I know Chairman Johnson asked you a question on income and wealth inequality, and I want to follow that up in terms of monetary policy decisions. Over the last 20 years, the top 1 percent of earners has grown by more than 86 percent while incomes for the remaining 99 percent have grown by less than 7 percent. And even during our current recovery from the financial crisis, the top 1 percent have received 95 percent of the income gains over the last 3 years while real median income remains 9 percent below 1999 levels.

So, of course, we all applaud those who achieve financial success, and we are thankful for that. But we are concerned that the vast majority of people in our country feel they are not sharing in the economic growth, and when widening income and wealth disparity make it harder for ordinary working families to move up the economic ladder, as studies have shown to be the case, it creates, I think, a greater challenge to our overall economic well-being.

So my question is: How does the Fed account for income and wealth inequality in its monetary policy decisions? For example, the Fed is looking at broad statistics like GDP, but economic growth is only accruing to a small share of the population while the rest feel they are still in a recession. Is that something that the Fed would wait longer to tighten until broader-based growth takes place? Or is there a broader range of statistics, including measures of income and wealth, that the Fed should be considering?

Ms. YELLEN. Well, I think that the trends that you have described in detail are extremely disturbing trends with very significant implications for our country, and I am personally and the Fed is very worried about these trends. The major thing that we can do is, as we try to assess the state of the labor market and appropriate policy, to look at a very broad range of statistics and metrics concerning the labor market, not just the unemployment rate but, in particular, other measures that suggest that the labor market is not functioning properly. The fact that we have seen very slow growth in wages, for example, I take as one of many pieces of infor-

mation suggesting that the labor market has not returned to normal and has quite a ways to go. And it is something that is appropriate for us to look at as we consider appropriate monetary policy.

Senator MENENDEZ. So you are looking at a broad—you will look at a broad range of factors as you are making your decisions?

Ms. YELLEN. Absolutely.

Senator MENENDEZ. All right. Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Vitter.

Senator VITTER. Thank you, Mr. Chairman, and thank you, Madam Chair, for being here and for your work.

As you know, many of us, certainly including Senator Brown and I, are concerned about capital requirements at the biggest banks. Can you confirm that U.S. regulators are close to finalizing the supplementary leverage ratio that would impact that? And if so, when do you expect that final action to be taken?

Ms. YELLEN. So this is high on our regulatory agenda for this coming year. We have out an initial proposal on this, and while I cannot give you an exact time, we will certainly be working with the other agencies to finalize this.

Senator VITTER. Can you give us an exact timeframe, a general timeframe, when you would expect the Fed to act?

Ms. YELLEN. In the not too distant future, I would say.

Senator VITTER. OK. According to the Wall Street Journal, Vice Chairman Hoenig said that regulators are unlikely to change the draft proposal with regard to a 5-percent capital buffer against all large bank assets and a similar 6-percent buffer at their insured deposit-taking subsidiaries. In contrast to that, there has been concern that you might follow Europe's lead in watering down some other provisions from the initial draft concerning things like a weaker treatment of derivatives and valuation of repurchase agreements.

Can you give us any insight into where those things stand in your discussions?

Ms. YELLEN. So, I mean, let me see if I understand what you mean here. When we came out with the proposal for the 5- and 6-percent the holding companies——

Senator VITTER. Correct. Do you think there is any chance that will change in the final action?

Ms. YELLEN. I mean, this is something we have been quite supportive of, and I am not envisioning——

Senator VITTER. OK. And then deeper in the weeds, if you will, there has been some suggestion that you could back off some other elements of the draft, for instance, on issues like the treatment of derivatives and valuation of repurchase agreements. Do you think that is any possibility? I would hope not. I think there are others on the panel who would hope not. I would encourage you to not weaken any elements of your draft. But is that under discussion?

Ms. YELLEN. So I am not aware if it is under discussion. I would have to look into that. But my objective would be to come out with a strong proposal. We have increased greatly risk-based capital requirements. In light of that increase, I see leverage in risk-based capital is sort of belt and suspenders. It is definitely, in my view, appropriate to increase leverage requirements more or less in line with risk-based capital requirements. And——

Senator VITTER. Well, I would just encourage a strong final set of proposed—or set of rules as strong or stronger than the draft. So I would just encourage that.

Let me move to one other topic I wanted to hit, and this is actually related to this too-big-to-fail issue which capital requirements are also about. A lot of us have a concern about the squeeze that community banks are getting in the financial sector. That has been a historic long-term trend. It has gotten even a lot worse since the 2007–08 crisis and since—and I would argue in some cases because of Dodd-Frank. So it is going from bad to worse in terms of a trend.

If you look at Federal Reserve Board membership, there is also a trend, and it is away from representation of any community banking or community bank supervision experience.

Let me just put a chart up. A chart is up, and this shows—it is a little busy. It is color-coded. This shows sort of the makeup of Federal Reserve Board members over time, and any community bank and community bank supervision experience, which is the yellow, is limited, and there has been a huge growth over time in terms of folks with a pure economics and academic background.

In particular, right now there is one person with that sort of community bank or community bank supervision experience, and she is leaving. So soon there will be none.

What would your thoughts be about a requirement to have at least one person in the future with that type of community bank or community bank supervision experience?

Ms. YELLEN. So I have had the privilege of working with Governor Raskin and previously Governor Duke, and I can certainly say that they made huge contributions in the community banking area, and the background that they were able to bring was extremely helpful to us in crafting regulations and approaching our supervision responsibilities with sensitivity to the special issues that community banks face. I hope the Administration would consider an appointment of someone with that kind of experience, and I can certainly attest that it is very helpful to us in doing our work.

Senator VITTER. Great. Thank you. Thank you, Madam Chair. Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Brown.

Senator BROWN. Thank you, Mr. Chairman.

Madam Chair, welcome.

Ms. YELLEN. Thank you.

Senator BROWN. We are thrilled that you are here, and thank you for your public service up to this moment——

Ms. YELLEN. Thank you.

Senator BROWN.——and your continued service. Thank you for—I thank Senator Vitter for his comments and questions about capital standards and urge you—I appreciated your answer and urge you as quickly as possible, with OCC and FDIC, to move as quickly as possible.

Thank you for your response to me about the real economy in your confirmation hearing. Last Friday, as the Board released transcripts of the 2008 FOMC meetings, the reading was interesting for those of us that find this stuff interesting. As you know, the Fed has a dual mission: fighting inflation, maximizing employment. But according to the New York Times, the September—the crucial,

probably most important of those, the September meeting on the eve of the Lehman bankruptcy, FOMC members mentioned, according to the minutes, inflation 129 times and recession 5 times. You speak forcefully, and have for some time, about the potential threats to the broader economy. This statistic implies that the institution overlooked what was happening on Main Street during this critical time. Now that you are Chair, convince us that we will not see meetings like that where the emphasis is so much more on inflation than full employment because—and that the focus will be more on ordinary Americans that bear the brunt of this economy.

Ms. YELLEN. Well, I think as you know, I take the Fed's dual mandate very seriously and believe we should be focused both on inflation and on unemployment. But to just try myself to put the 2008 situation in context, if you think about what happened within months of that September meeting, where perhaps people did not realize just how serious the deterioration in both the financial markets and the economy was about to get, you know, within days or months of that meeting, the most incredible array of programs had been rolled out by the Federal Reserve to address deteriorating economic conditions, an alphabet soup of programs to support credit, the availability and extension of credit throughout the economy, to provide liquidity not only to banking organizations but to markets that were really finding themselves deprived of it. And by December of 2008, even with all the mentions of inflation that you noted, the FOMC had certainly changed its focus and in December lowered the Federal funds rate to zero.

So I think I was one of those who was urging more, faster, we need to get on this, but within 3 months, a great deal had been done, and since then we have been trying to do it. So in some sense, I think the Fed has responded.

Senator BROWN. And to your credit, you looked better in those minutes than some of your colleagues did, but that is the past, and you look to the future.

I want to follow up on some of the too-big-to-fail questions. In November, you said address too big to fail is among the most important goals of the post-crisis period. You mentioned capital requirements. You mentioned SIFI capital surcharges, resolution authority, long-term debt requirements, supplemental leverage ratio. You also have living wills and the authority to break up institutions if they pose a grave threat to the financial system. Despite all that, the Nation's foremost expert on banking regulation, your once fellow Governor, Dan Tarullo, said on Tuesday that we are "not even close" to ending too-big-to-fail. It has been 5 years since the crisis. When are we going to be—you have the tools as the new Fed Chair. Why is it taking so long? And when is this going to be resolved? When can the financial—when will America's financial community and the American people know that too-big-to-fail has actually ended?

Ms. YELLEN. Well, I am slightly surprised that he said we are nowhere close, because I personally think we have made quite a lot of progress in putting in place regulations that will make a huge difference to this. Even in orderly resolution, I think it is important—we were just discussing the long-term debt requirement. There are thorny obstacles to resolving a failing firm having to do,

for example, with cross-border resolution issues, how to deal with the fact that laws in foreign countries could make it impossible—you know, could precipitate the ending of contracts that would cause a disorderly failure of a firm. But we are working very closely with our foreign counterparts to try to resolve these issues, and you gave a list of all the things—or some of the things that we have on the drawing board that we are hoping to finalize within months or during this year. Beyond that, we are working on shadow banking, our stress test capital in the banking system, the highest quality capital has doubled since the crisis. And I personally think we are making strides, and I am continuing—I am completely committed to seeing this agenda to fruition, and I am more encouraged about the progress that we are making. And I am committed to completing this.

Senator BROWN. Thank you. One last comment, Mr. Chair. I apologize. I think that a quick—accelerating the rules that you and FDIC and OCC, without diluting those rules, is a really important not just substantive thing to do, but really important message to the financial community and to the public that you really do mean it and you mean business on this and you really do want to end too-big-to-fail. So thank you.

Ms. YELLEN. Absolutely. I agree with you.

Chairman JOHNSON. Senator Heller.

Senator HELLER. Thank you very much, Mr. Chairman. Dr. Yellen, thank you for being here. Thanks for listening, being patient, and taking our questions.

I know that as a former Chair of the San Francisco Federal Reserve, you have a pretty good understanding of the State of Nevada and its current economic conditions. It has been over 5 years now since we have had this economic collapse, and I want to take a quote from the president of the St. Louis Federal Reserve who recently said that we are a lot closer to a normal economy than we have been in a long time. And I would stress that I can tell you right now Nevada is nowhere close to a normal economy. While maybe some parts of this country are experiencing some recovery, Nevada is still at 8.8 unemployment, second highest in the Nation, and many homeowners are still underwater.

So I guess the question is: Do you feel that the struggle that Nevadans are currently experiencing, is this a new normal, according to the president of the St. Louis Federal Reserve, or a new economic reality?

Ms. YELLEN. Well, I mean, as you know, Senator, Nevada was one of the hardest hit. It had one of the biggest booms in housing, and about——

Senator HELLER. In 20 years, yes.

Ms. YELLEN.——the biggest bust of any market in this country, and I am well aware that an unusually large share of homeowners is underwater. You know, their prices have come up, and they are coming up in a way most rapidly in some of the areas like Las Vegas where they fell the most. But it is still going to be a long slog before things are back to normal in the housing market in Nevada and some of those hard-hit areas. Prices are moving back up. We see investors coming in and, you know, buying homes and converting them to rental housing. But credit is really hard for many

families to get, the ability to have home equity loans when it has been wiped out, and, unfortunately, Nevada is one of the States that has been most badly affected.

Senator HELLER. Right. Any timeframe for a new normal or a normal economy?

Ms. YELLEN. Some years, I think.

Senator HELLER. Several years? Can you give me what your definition of "full employment" is?

Ms. YELLEN. To me, it is a state of the job market in which people are able to find in a reasonable period of time jobs for which they are qualified, and there is no single metric, I would say, that would enable me to tell you when we have reached that. I would look at a broad range of indicators of the labor market. If I had to choose one metric, the unemployment rate is probably the best, and members of our Committee are not certain exactly what constitutes full employment but generally see a range of 5 to 6 percent or a little bit—in that area to be a state of full employment in the economy, but also looking at part-time employment, job flows, what is happening with wages, and a broader set of metrics I think is necessary.

Senator HELLER. What is real unemployment today?

Ms. YELLEN. Well, I am not sure exactly—some of the broadest measures of unemployment, like U6, which includes marginally attached workers and those who are part-time for economic reasons, namely, they cannot find full-time work, are around 13 percent.

Senator HELLER. Around 13 percent. The Congressional Budget Office recently reported that President Obama's proposal to raise the minimum wage would eliminate a half a million jobs. Some believe they are low-balling this figure. And I know that it is your job at the Fed to maximize employment. I would like to hear your thoughts on this soft economy and the impact of raising the minimum wage.

Ms. YELLEN. Well, I think almost all economists think that the minimum wage has two main effects: one is to give higher wages to those who continue to have jobs and were earning the minimum wage; and then, second, that there would be some amount of negative impact on employment as a consequence. And there is considerable debates about just what the employment impact of it would be. CBO is as qualified as anyone to evaluate that literature, and I would not argue with their assessment. I mean, there are a range of studies, and they cited them, but, you know, I would not want to argue. They are good at this kind of evaluation and have opined on this. I think they also—I cannot remember the numbers involved, but indicated that a large number of individuals would see their incomes raised as a consequence. I think that is the tradeoff.

Senator HELLER. Doctor, thank you. My time has run out.

Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Tester.

Senator TESTER. Thank you, Mr. Chairman. I want to welcome Chair Yellen. Thank you for putting yourself forward for this job, and congratulations on a historic confirmation.

Ms. YELLEN. Thank you.

Senator TESTER. We were able to visit about a number of issues, and we are going to visit about them again. End users are one of

those issues that we discussed, clarifying the end-user exemption from the margin that was included in Dodd-Frank, given the minimal risks that they pose to the system.

As you know—we have visited—Chairman Bernanke, your predecessor, and Governor Tarullo have both indicated comfort with the intent of the exemption given the lack of systemic risk posed by nonfinancial entity end users, but concern about the ability of the Fed to achieve that intent. Since the proposed rule issued back in 2011, there has been a number of additional developments, including most notably the finalization of the IOSCO framework in September setting forth globally agreed to margin standards.

Can you share with us where the Fed's thinking stands on this issue in light of those developments?

Ms. YELLEN. So the Fed continues to think that end users do not pose systemic risks, and we will come back and will be crafting a rule in light of the international negotiations, and I believe that we will do our very best to make sure that there are no undue burdens imposed on end users who do not pose systemic risk.

Senator TESTER. I thank you for that. And I know your plate is full and there are many issues that you are dealing with every day, and people are always asking you when is it going to come out, so I will do it. When is the timing on that front?

Ms. YELLEN. I cannot give you a date certain, but——

Senator TESTER. Before the end of the year?

Ms. YELLEN. I believe so.

Senator TESTER. OK. The Chairman talked about banks and insurers' regulatory policies. In the final rule released last week, Section 165 of Dodd-Frank, the Fed declined to apply the rule to nonbank financial companies at this time and indicated a desire to basically tailor this rule for insured SIFIs. Can you tell me more about what the Fed has in mind with respect to the tailoring?

Ms. YELLEN. So we understand that the business models of insurance companies are quite different than those of banks. There are a number of ways, the asset liability matching separate accounts and so forth, that require tailored design of capital and liquidity requirements so they are appropriate to those business models. And we are trying to take the time that is necessary to understand in detail the businesses of these companies and what is appropriate.

I would say again, though, that we do have some constraints in what we are able to do because of the Collins amendment.

Senator TESTER. OK. So could you give me some insight into what extent might the tailoring with respect to this rule provide a road map for how the Fed might seek to tailor other rulemakings?

Ms. YELLEN. I mean, I believe we in general tried to tailor our rulemakings; I am not sure what area in particular you have in mind.

Senator TESTER. Well, with insurers particularly, but others, too, if you might.

Ms. YELLEN. Well, I mean, generally we try to tailor our rules so that they do not pose undue burdens on companies that do not pose risks to the system. I would say, for example, in the case of community banks, while I know community banks are under many

burdens and it is not easy to run a community bank, for our part we are trying to avoid burdening community banks with the same level of regulatory complexity that we would impose on a systemically important institution. And the same is true in other areas where we have the ability to tailor rules to make them appropriate.

Senator TESTER. OK. Thank you. And in regard to international insurance regulation, I just want to say how much I appreciate the Fed moving in the direction that you spoke of earlier, and I very much look forward to working with you to ensure that we do not force insurers into a bank-centric regulatory model.

I also want to note how critically important that this sentiment and the direction that the Fed is heading in terms of tailoring regulations for insurers is fully reflected in any international negotiations regarding capital standards that you may be a part of in your capacity as a member of the Financial Stability Board. I just want to thank you for your good work. I, as many others on this Committee have already expressed, am very impressed with your work and look forward to working with you as we go down into the future.

Ms. YELLEN. Thank you very much, Senator. I appreciate that.

Chairman JOHNSON. Senator Toomey.

Senator TOOMEY. Thank you, Mr. Chairman, and Madam Chairman, thank you very much for being here. Welcome on your first visit in your new role.

Ms. YELLEN. Thank you.

Senator TOOMEY. You know, I have been very concerned about this monetary policy for some time, and I wonder if you could for the Committee give us a sense of how you would quantify the benefits that the economy has enjoyed, assuming you believe there are benefits, from this unprecedented experiment that we have been engaged in. A lot of very reputable economists look at traditionally understood transmission mechanisms to be asset price reflation translate into more spending, and the quantification of that gives some very, very modest numbers, but I wonder how you quantify the benefits from the quantitative easing we have had.

Ms. YELLEN. So I do not have a quantitative estimate that I can present to you today. There are a range of estimates in the literature. You know, we hit the so-called zero bound in December of 2008. We lowered the Fed's overnight interest rate target to zero. Standard rules like the Taylor rule would have called for substantially more accommodation. Rules like that would have said that we should go to minus 400 or 500 basis points if we could, and we could not. And so we looked for other ways to provide the accommodation that the economy seemed to need. So asset purchases and forward guidance, I think they have served to push down longer-term interest rates.

We have seen some significant recovery in housing. The backup in rates we have seen last spring and summer clearly seems to have had a negative impact on housing. And so I think it is fair to say that we were successful in pushing down longer-term rates through these policies. We did see a positive response in housing. I think in the area of vehicle sales, interest-sensitive spending has responded.

Senator TOOMEY. I do not mean to—I have just got such limited time. I have got a few—so I am aware of the changing in economic statistics. But the point is you do not have a quantification for how much of that is attributable to the quantitative easing.

I guess the second question I have——

Ms. YELLEN. Well, there are estimates that——

Senator TOOMEY. But there is not one that is——

Ms. YELLEN.——a number of people have had.

Senator TOOMEY. That you have endorsed or that you subscribe to.

Ms. YELLEN. I have cited some, and I will——

Senator TOOMEY. OK.

Ms. YELLEN.——provide you details on some that I have cited.

Senator TOOMEY. On the risk side of this equation, I know you did mention some of the things you are looking for. Many people believe that last decade the unusual monetary policy, including maintaining negative real interest rates for an extended period of time, at the short end of the curve anyway, contributed significantly to the housing bubble that later burst, of course. Do you agree that that was a contributing factor? And, second, among the risks that you look at, as we hopefully move to normalcy, which ones concern you the most? And then I have got one last really short question.

Ms. YELLEN. So I think it will take awhile for scholars to decide exactly what role easing monetary policy had in contributing to the financial crisis. I would not argue with the idea that a long period of low interest rates does contribute to the buildup of leverage and may have touched off a housing bubble. But I think on the regulatory side and the supervision side, there were also failings that contributed importantly to the crisis.

We are watching very carefully for the development of any such excesses. We are very focused on not allowing such a thing to happen again. And while there might be a few areas where I have concerns such as deteriorating underwriting standards and leveraged lending, farmland prices, a few things, I do not see those excesses having developed at this point.

With respect to housing prices, they have rebounded significantly, but remain not back to their peak levels by any means, and price/rent ratios in housing certainly remain in normal ranges. So I do not think we have promoted those kinds of excesses, certainly not at this stage.

Senator TOOMEY. Thank you. My last question. You have stressed a couple of times the importance that you attach to fulfilling the congressional legislative mandate to maximize employment as well as the other portions of the mandate. My question is: Would the behavior of the Fed, with the actions and the policies of the Fed, be any different at all if the Fed had only a single mandate and that were price stability?

Ms. YELLEN. So over these last several years, I think the answer is no, because at the moment——

Senator TOOMEY. Well, how about today?

Ms. YELLEN. Well, inflation is running well below our objective, and the economy has fallen short of full employment. So both of

these—both pieces of the mandate are giving us the identical signal, namely, we need an accommodative policy.

Now, there can be situations where there could be conflicts between the objectives, and in that sense, it would make a difference, it might make a difference to have a dual mandate rather than a single mandate. At the moment there is no such conflict. But my personal view is that this mandate has served us quite well, and most central banks, even if they have an inflation target, also have a mandate to take account of economic growth and stability.

Senator TOOMEY. Although the ECB does not, right?

Ms. YELLEN. That is true.

Senator TOOMEY. Thank you very much, Mr. Chairman.

Chairman JOHNSON. Senator Hagan.

Senator HAGAN. Thank you, Mr. Chairman. And, Chairman Yellen, welcome to the Committee. I was so pleased at the beginning of the hearing to hear Chairman Johnson's introduction and welcome to you as the first woman to head up the Federal Reserve, so welcome.

Ms. YELLEN. Thank you so much.

Senator HAGAN. My questions—my first one is: During the January 2014 Federal Open Market Committee meeting, the Committee authorized the Federal Reserve Bank of New York to conduct a series of fixed-rate, overnight, reverse repurchase operations involving U.S. Government securities and securities that are guaranteed by agencies of the United States. The authorization runs through January 30th of next year, of 2015, and specifies an offering rate of zero to five basis points that you have the authority to waive. The program, which has been steadily extended and expanded, is being considered for use in supporting the implementation of monetary policy. So I want to ask you some questions about this.

Can you begin by describing this program, its scale, and then your vision for its expanded use? And also, if you can talk about the dollar volume of these operations.

Ms. YELLEN. So this fixed-rate, overnight, reverse repurchase facility is one where we are essentially borrowing from entities other than banking organizations. We are offering to pay a low fixed rate and are offering our counterparties, in return for their loans to us, collateral which comes in the form either of Treasury or agency mortgage-backed securities. And we are engaging in this program—as you mentioned, this is something technical, but we want to be able to firmly control short-term money market rates. When the time ultimately comes, which it is not—it is probably a long way off, but when the time comes that we do want to tighten monetary policy and raise our target for short-term interest rates, we would like to be able to execute that in a very smooth way so that we have good control over the level of short-term interest rates. And paying interest on reserves, that is something—that is one tool we will be using to boost when the time comes the level of short-term rates, but using this new facility can also help us gain better control, I think, than we could through interest on reserves alone.

So at the moment, we have been experimenting with developing this facility, making sure we can smoothly execute these transactions with a range of potential lenders. We have put limits both on the magnitude of loans that we will be willing to take on and

what we are paying, as you mentioned, the limit so far has been five basis points. We are pleased by what we are seeing about our ability to carry out these exercises, and it is part of prudent planning that the Fed has been doing for quite some time.

Senator HAGAN. And what about the dollar volume?

Ms. YELLEN. It varies from day to day, depending on how much interest there is in the markets. It is up to the markets to decide. We have typically had limits on the amount that any one firm can lend to us overnight.

Senator HAGAN. It was 3 billion, now it is up to 5 billion?

Ms. YELLEN. Yeah. I think there were some days at the end of the year, given the pressures that existed toward the end of the year, when I believe the volume rose to 30 or 40 billion, but I can get you some—I can get you exact details on the quantities, if you would like further information.

Senator HAGAN. What are the monetary policy effects of raising this offer rate beyond the range set in the FOMC's resolution?

Ms. YELLEN. Well, these are very, very low rates.

Senator HAGAN. Right.

Ms. YELLEN. And so we are not raising rates by doing this. We are only going up to five basis points. We are paying 25 basis points on interest on reserves, and there is really only any takeup at times when there would be, you know, pressure for unusual reasons for rates to fall below that. But we are not pushing up the general level of short-term rates with this facility at this time.

Senator HAGAN. My time has run out. Thank you very much.

Chairman JOHNSON. Senator Manchin.

Senator MANCHIN. Thank you very much. And congratulations, Madam Chairman, and I am so pleased that I was able to vote for you on final confirmation.

Ms. YELLEN. Much appreciated.

Senator MANCHIN. And that was a lot—and you and I had nice conversations concerning the quantitative easing.

Ms. YELLEN. Yes, thank you.

Senator MANCHIN. And I appreciate the job you are doing.

Ms. YELLEN. Thank you.

Senator MANCHIN. Let me just say that I sent you, along with five other regulators, a letter yesterday expressing my concerns with Bitcoin, and I fundamentally believe it is being used primarily for illegal activities. It allows scam artists and hackers to steal money from hard-working Americans, and it is a bad form of currency because it has a deflation problem. Most recently the major exchange for Bitcoin unexpectedly went dark, which led to $400 million in Bitcoins evaporation overnight. I am concerned—other countries are ahead of the curve by already issuing regulations to protect their citizens, which might leave Americans truly holding the bag. And I would like to know your view on the Bitcoin. And what actions does the Fed have planned on regulating this unstable currency?

Ms. YELLEN. Senator, I think it is important to understand that this is payment innovation that is taking place entirely outside the banking industry, and to the best of my knowledge, there is no intersection at all in any way between Bitcoin and banks that the Federal Reserve has the ability to supervise and regulate. So the

Federal Reserve simply does not have authority to supervise or regulate Bitcoin in any way.

I think my understanding is that FinCEN and the Department of Justice have—I mean, one concern here with Bitcoin is the potential for money laundering. I think that they have indicated that their money-laundering statutes are adequate to meet their own enforcement needs. So the Fed does not have authority with respect to Bitcoin, but it certainly would be appropriate, I think, for Congress to ask questions about what the right legal structure would be for, you know, virtual currencies that involve nontraditional players that are not regulated by——

Senator MANCHIN. Let me just say—and I am so sorry, because our time—you know how our time runs here.

Ms. YELLEN. Sure.

Senator MANCHIN. If there is going to be a new American exchange for the Bitcoins, they are going to be using banks. If this exchange is using banks, you all will have——

Ms. YELLEN. If they use banks, but my understanding is that Bitcoin does not touch banks. It is not settled or cleared through——

Senator MANCHIN. Why did other governments—why did other countries believe they had to get involved?

Ms. YELLEN. Well, you could get involved, if Congress wants to get involved and set up a supervisory regime.

Senator MANCHIN. OK.

Ms. YELLEN. I think it is not so easy to regulate Bitcoin because there is no central issuer or network operator to regulate. This is a decentralized——

Senator MANCHIN. OK. What we will do—what we will do is I think probably, if we can, further explore this and get some recommendations and see what our ramifications would be. We would really appreciate that.

Ms. YELLEN. Sure. And we would be happy to work with you.

Senator MANCHIN. OK.

Ms. YELLEN. We are looking at this.

Senator MANCHIN. We will do it.

Ms. YELLEN. And we would be glad to talk to you about it.

Senator MANCHIN. OK. My other question is going to be on community banks. I know we have spoken about community banks. But a new study just released this morning by the Mercatus Center showed that Dodd-Frank is having a negative impact on community banks. It just came out this morning. Most community banks have had to hire at least one additional compliance officer, and many have had to hire two. It does not seem like much, but former Fed Governor Elizabeth Duke, who I know you know very well, has said hiring one additional employee would reduce the return on assets by 23 basis points for many small banks. In other words, 13 percent of banks with assets of less than $50 million would go from profitable to unprofitable, which is very concerning. In my great State of West Virginia, you know, community banks are our lifeblood, and it has really caused a problem here.

So based on the new study, 13 percent of banks may be unprofitable simply because they had to hire a new compliance officer to deal with the burdensome Dodd-Frank.

What can the Feds do to protect these banks other than just asking us to do our job?

Ms. YELLEN. So we have tried in all of our rulemakings to tailor regulations so that changes that are really meant to reduce systemic risk that these banks do not contribute to, that we are not burdening them. I mean, we have thought it appropriate that even community banks have appropriate capital and appropriate quality of capital, and so there have been some new standards that have applied to community banks. But what I can pledge is that we will in all of our rulemakings do our very best to minimize burden on community banks, and we will listen very carefully through our contacts with——

Senator MANCHIN. You can see the burden that——

Ms. YELLEN.——the community banks to understand what the burdens are and to minimize them where we possibly can.

Senator MANCHIN. That report just came out, and my time is up, but I have more questions that I will submit for the record. But one thing I would like to say and hope you would consider, just yesterday the Wall Street Journal reported that China's central bank engineered—and I repeat, engineered—the recent decline of its country's currency, which is yet another clear example of currency manipulation. And we are so concerned about that, ma'am.

So I will submit these for you.

Ms. YELLEN. OK.

Senator MANCHIN. Thank you.

Chairman JOHNSON. Senator Warren.

Senator WARREN. Thank you, Mr. Chairman, and welcome, Chair Yellen. It is good to see you here.

Ms. YELLEN. Thank you.

Senator WARREN. So back at your confirmation hearing, you said you thought the Fed's supervisory and regulatory responsibilities were as important as the monetary policy responsibilities, and I agree. But I think current Fed practices do not reflect those values. So while the Fed's Board of Governors votes on every important monetary policy decision, the Board rarely votes on issues like whether to settle enforcement actions.

Last year, the Fed reached its largest settlement in its history—$9.3 billion—with mortgage servicers, affecting more than 4 million families. But it was the Fed's staff that worked out that arrangement, and the Fed Board did not even vote on it.

So 2 weeks ago, Congressman Cummings and I sent a letter to you recommending that the Fed change its rules so that the Board would have to vote before any major settlement. Do you support such a change?

Ms. YELLEN. Senator, I think that you have raised very important questions about this, and I do think it is appropriate for us to make changes, and I fully expect that we will.

Senator WARREN. And, in principle, support what we have asked for in this letter, that is, clear and concrete evidence that the Board is involved in supervisory and regulatory policy.

Ms. YELLEN. It is completely appropriate for the Board to be fully involved in important decisions, and I——

Senator WARREN. And voting is a good way to do that.

Ms. YELLEN. I fully intend to make sure that we are.

Senator WARREN. Thank you. Thank you.

Now, I want to ask about another aspect of the mortgage settlement. When the deal was struck, the Fed had a big press release to announce a $9.3 billion settlement. But it turned out that of that $9.3 billion, $5.7 billion was in the form of credits for what the Fed described in its press release as "assistance to borrowers such as loan modifications and forgiveness of deficiency judgments."

What the press release did not say is how the credits would be calculated, and later it came to light that under the agreement, mortgage companies could get away with actually paying only a fraction of that $5.7 billion. Now, the fine print in this settlement could potentially reduce the direct relief to borrowers by literally billions of dollars.

So Senator Coburn and I recently introduced a bill, Truth in Settlements Act, which would require every agency to publicly disclose the key details of their settlement agreements, including the method of calculating those agreements, whether it is tax deductible and so on. And the disclosure would be required up front at the time the settlement is announced.

Now, the Fed does not have to wait for Congress to do that. You could voluntarily adopt that public disclosure now. Will you do that?

Ms. YELLEN. So I agree with you it is important for us to disclose more and to disclose as much as we can, and we will look at that very carefully and try to provide more information.

Senator WARREN. So, in principle, we are talking about more disclosure here.

Ms. YELLEN. Correct.

Senator WARREN. I think this is really important because this is about accountability. We want to be able to hold our financial institutions accountable, but it also means accountability for our regulatory institutions.

Ms. YELLEN. Agreed. It is a principle I endorse.

Senator WARREN. Good. Thank you. And I want to just follow up quickly, if I can, on Senator Brown's question about too-big-to-fail. You said that we have made significant progress but much work remains to be done, and I agree. But I would note that since the financial crisis in 2008, the five largest financial institutions are 38 percent larger than they were back then.

So my question is: What evidence would you need to see before you could declare with confidence that too-big-to-fail has ended?

Ms. YELLEN. So I am not positive that we can declare with confidence that too-big-to-fail has ended until it is tested in some way. I mean, I do believe that there are demonstrable improvements in terms of the amount of capital and liquidity that we have put in place, both through stress testing and Dodd-Frank regulations. There is more to come in the form of SIFI surcharges and likely a supplemental leverage ratio. You know, there is a whole agenda here of minimum debt requirements.

I think it is important to feel that we have solved too-big-to-fail that we have the confidence that if an institution were to get in trouble, that we could actually resolve that institution.

Senator WARREN. And I am over time, so I really will quit, Mr. Chairman. He is strict with us, but I just want to draw in on this

a little bit. So long as the markets believe that too-big-to-fail has not ended, and they demonstrate that by reducing capital costs for the banks that are perceived to be those that the Government would rescue, do we still have a too-big-to-fail problem?

Ms. YELLEN. Well, the markets may think that we will rescue such an institution and may not end up believing us until we put it through resolution. So we cannot guarantee that they have an appropriate view of how we are going to handle such a situation, but I do think it is appropriate to look at estimates of subsidies and so forth in judging what progress we are making. I do not think it is definitive, but it is certainly appropriate to keep track of those markets metrics. And, I mean, we see that rating agencies are changing their methodology, diminishing the amount of their estimates of the amount of support that would be forthcoming. And I think as we, you know, complete our work on orderly liquidation, putting in place minimum debt requirements and working with foreign supervisors to feel we really could effect an orderly liquidation if it came to it, that that estimate of market subsidy should certainly come down.

Senator WARREN. Well, thank you very much, and I will look forward to our continuing to track those data.

Ms. YELLEN. Very good.

Senator WARREN. Thank you, Mr. Chairman.

Chairman JOHNSON. Senator Warner.

Senator WARNER. Thank you, Mr. Chairman. Madam Chairman, you are on the home stretch.

Ms. YELLEN. Thank you.

Senator WARNER. Since my friend Senator Warren raised the point that I know Senator Brown has raised repeatedly, you know, I came at this from a different perspective, and I think this is a very valid debate. One of the things, as you go through the tools that Dodd-Frank gave you, that I think that might help make the case is in your, in effect, blessing of the resolution plans, as you are, I know, well aware, you have the ability if there is an institution that has such a behemoth that it has its tentacles everywhere, that through resolution could not be orderly put through resolution, you have your ability to use that power to disentangle or take away part of that institution, which might be a great signal, because I do think there are—I do not want to say this with Sherrod not in the room, but, you know, he continues to make a point that it would be bad for us to have to wait until we have the moment of crisis to fully feel whether we have fully got it right. I think showing strong evidence along the path, because I do think you have—rather than—I have been concerned about arbitrary asset caps being the right test, that you have some of those tools, and using some of those tools in advance of a crisis might be—might make some of more assured. One editorial comment.

Second editorial comment, following up on Senator Manchin's comments about community banks and smaller institutions, I think there were a number of us who felt very strongly as we went through Dodd-Frank that we tried to put—by putting that $10 billion cap in terms of some of the regulations that did not fall below on those smaller institutions, I think it was good in theory. The challenge has been, as best practices get kind of built into the regu-

lators' mind-set, even though there may not be a legal requirement for these additional regulatory obligations, for these smaller institutions, I think it has become kind of best practice model.

So I know earlier on when Sheila Bair was head of the FDIC, there were, in effect, jawboning efforts and others. I would encourage you and your colleagues at FDIC and other regulators, because this is a—you know, when compliance is the fastest growing area in the finance industry, that should be of some concern. In some institutions, it needs to be, but in some of our smaller institutions, it—we are, I think, affecting the market in a way, at least from this Senator's standpoint, was not what we hoped to do in putting our smaller banks at such a disadvantage. There may be ways through guidance or other things that you can nudge our regulators. Part of this I think is just a mind-set that you could come back to.

My time is going quickly. Let me just ask two questions totally unrelated so I can get them out before the Chairman gavels me out.

One is—and I know you have been hit on almost every subject, and these two are going to be completely out of—maybe not total left field. One, although an area again that Senator Warren has raised a lot, student debt now at $1 trillion north of our credit card debt. I feel this may be kind of the next looming financial crisis, lots of different ideas on how we get about it. Part of that has been, as we all know—at least I believe is because of decreasing direct Federal and State assistance to higher education. And we have kind of said—made this addiction to debt amongst our students. I would like a comment on that.

And then also I would like a comment on an issue that I have raised before, and I know you have not—you felt I perhaps overstated it, but, you know, with our financial institutions now having $2.4 trillion in excess reserves deposited at the Fed, and I know that 25-basis-point interest rate you pay you feel is not that much, I would simply say that, you know, when you have got other central banks like the Bank of Denmark, which is actually made negative, that has pushed their institutions to get more of that money lent out, which actually then might assuage Senator Shelby because you might not have to do as many asset purchases if some of these banks were doing more to stimulate and get that capital back out into the marketplace. So I really do believe the excess reserves—I hope you will comment on that as well.

Thank you, Mr. Chairman. I got that all done at 12 seconds left.

Ms. YELLEN. So with respect to student debt, I mean, clearly the outstanding volume of Government-supplied student debt has escalated. On the one hand, I think it is a good thing because there are these huge differentials between what more and less educated people earn, and we want people to have access to education to be able to improve their skills. But on the other hand, it may be that sometimes they do not quite know what they are buying and what the education that they may be acquiring, you know, it is important for them to understand what are the placement rates and job experiences of the schools that they are paying to go to. It is not obvious that that is always readily available. And then, again, because student debt is something that you cannot get rid of in bankruptcy,

individuals who take it on can really be faced with very substantial burdens if they encounter financial difficulties, and, you know, that is really of some concern.

On the interest on reserves, I recognize the argument that you are making. I think that lowering that rate would have very limited—it goes in the right direction, but would have a very limited effect on bank lending.

We have worried about what impact it would have on money markets that we operate in, and not wanting to disrupt, completely disrupt money market activities, it is something we have considered and could consider going forward. But there are conflicting things that are going on there.

Chairman JOHNSON. Senator Merkley.

Senator MERKLEY. Thank you very much, Mr. Chair. And thank you for your testimony before our Committee.

I want to focus on a report that was released yesterday by Senators Carl Levin and John McCain, a bipartisan report that chronicled how Credit Suisse helped thousands of wealthy Americans evade U.S. taxes by stashing their money in Swiss banks. It highlighted flagrant abuses where employees of the bank came to the United States to seek wealthy new recruits at golf tournaments and bank-sponsored events, but telling U.S. officials they were simply here for tourism. They even set up special meeting rooms at airports and destroyed account statements that had been reviewed.

Billions of dollars of U.S. taxes were dodged in the course of this with the help of the bank, and it is doing business in the United States under the supervision of the Federal Reserve Board.

Now, this report, very thoroughly researched, is critical of our own Department of Justice for failing to prosecute or use the leverage at its disposal of a bank operating in the United States. Senator Levin rightly pointed out if the Swiss bank does not want to or cannot comply with U.S. law, maybe it should not do business in the United States.

This case has reminders or echoes of the HSBC case we saw just a year ago, flagrant violations through transactions carefully structured to keep U.S. officials out of the loop, and once discovered, an unwillingness by the Bernanke regulators and DOJ to use their authorities to hold anyone accountable.

As Senators Levin and McCain asked the CEO to admit yesterday, and he did admit to, not one person was fired for flagrant, willful violations of U.S. law from the CEO on down. It is the same story for HSBC and, frankly, for any other number of other banks that were involved in predatory transactions that hurt American citizens.

So I guess my question is this: We have a situation where the Government refused—and this is the Government of Switzerland—and blocked the identification of the folks who were stashing their money in Switzerland. We are talking about 22,000 U.S. customers with Swiss accounts, of which less than—or about 1 percent, the names were shared with the United States. If they are not going to share the names for these illegal activities, should the Federal Reserve Board be using its regulatory power to basically say if you cannot play by the rules, you cannot bank in the United States?

Ms. YELLEN. Well, you know, certainly in our work with institutions, it is incumbent on us to make sure that they comply with the law, and when there are violations of the law, we will refer—have referred it and will refer it to the Department of Justice if there is criminal behavior that is involved. And the Department of Justice should be pursuing that, and I think the behavior that Senator Levin uncovered with respect to this institution is both illegal and highly unacceptable, and it should be pursued.

Senator MERKLEY. So certainly a criminal action being referred to the Department of Justice is appropriate, but you also have powers. You have powers for how banks operate in the United States that are separate and independent of the Department of Justice. Should the Federal Reserve be using these powers in reaction to this type of criminal behavior?

Ms. YELLEN. Well, so our obligation has to do with safety and soundness, and to the extent that these practices are illegal and we have an institution that is discovered not to be complying with the law, we have an obligation to act to make sure that it comes into compliance. And if we detect behavior that is criminal, it is our obligation to refer that to the Justice Department for prosecution.

Senator MERKLEY. So one of the powers you have directly is to remove executives of banks when they misbehave. Is it your intention to pursue this issue in any way to explore whether that type of action is appropriate in this situation?

Ms. YELLEN. I will discuss with my colleagues what is appropriate. I do not have a definitive answer for you.

Senator MERKLEY. Thank you very much for pursuing that. I will certainly want to follow up with you, because when we are talking over $1 billion of tax evasion and of 22,000 Americans engaged, we cannot even get more than 1 percent of the names of folks, and yet it is up to our regulatory agencies to decide whether and how a bank participates in the U.S. economy. And if we are holding U.S. banks to one standard and letting foreign banks operates by a completely different standard, that is a fundamental unfairness. And it is also an unfairness to ordinary Americans. If ordinary Americans are engaged in tax evasion, they can serve a lot of years in jail. In this case, we are talking massive facilitation of tax evasion by a bank, now well documented by McCain and Levin, and it seems like there should be some accountability. And I know folks in my town halls ask this all the time: Why does there seem to be a different standard? With HSBC, their money laundering was well documented over a 10-year period. They facilitated terrorist networks. They facilitated drug networks. They facilitated the evasion of U.S. sanctions, very important to us, for example, the sanctions to try to prevent Iran from obtaining a nuclear weapon. And yet not one bank official was held accountable.

So this is another chapter and a new opportunity to change this story of fundamental just and fairness, and I would just ask that you take a very serious look at it.

Ms. YELLEN. I will. Thank you.

Senator MERKLEY. Thank you.

Chairman JOHNSON. Senator Shelby has a brief point to make.

Senator SHELBY. Thank you.

Madam Chair, thank you very much for sticking around with us. I would pose this: Is the Fed inconsistent? Let me explain. On one hand, the Federal Reserve holds GSE securities on its balance sheet at face value. And on the other hand, it is asking under Basel's regulation, it is asking financial institutions—that is, our banks—that hold the same GSE-backed securities that the Fed has basically to take a 15-percent haircut when risk weighting such assets for the purpose of Basel III calculations. That is my understanding of what is going on.

How is the market to interpret this discrepancy in the approach by the Fed to its own portfolio as opposed to the portfolio of the banks that it regulates? It looks like on monetary policy you have got one thing, your own stuff, and then the banks, who hold about 40 percent of GSEs, prudential regulations look at it in a different way?

Ms. YELLEN. Well, Senator, you mean they have capital requirements——

Senator SHELBY. That is right. That is exactly right. Liquidity. Whether they call it "new liquidity coverage ratio" under the Basel III deal.

Ms. YELLEN. Oh, OK. But why would the Fed have a liquidity—I mean, we——

Senator SHELBY. The banks—go ahead.

Ms. YELLEN. You mentioned that we carry these on our balance sheet at face value. That is an accounting convention that we use in Fed accounting. We also report when there are price fluctuations for these securities, we report that in our financial accounts, so the market value of these securities is——

Senator SHELBY. I understand that. But at the same time, aren't you on one hand treating as a regulator your banks, say they have to take a 15-percent haircut on GSE holdings, and the Fed is different. I know you do different things.

Ms. YELLEN. I mean, we want to——

Senator SHELBY. The approach should be consistent. Or should it not?

Ms. YELLEN. We want to make sure in the liquidity coverage ratio that banks have adequate liquid assets to be able to meet potential withdrawals that they can face over a period of about a month.

Senator SHELBY. Sure.

Ms. YELLEN. And while mortgage-backed securities are assets that can be sold, they are somewhat less liquid than Treasurys, and the most liquid in cash. And so in computing this, we put in place a 15-percent haircut. But to say that the same requirement should apply to the Fed, I am confused about that because we do not have the possibility of having runs on the Federal Reserve——

Senator SHELBY. Ma'am, I was raising the inconsistency in the approach. Is there an in consistent approach? Or do you say one is good for the banks and the Fed does not need that? Is that what you are saying?

Ms. YELLEN. I believe that the Fed does not need that, and we are not in this area of liquidity in the need to maintain liquidity that the Federal Reserve is really quite different than an ordinary

commercial bank. We are not subject to liquidity runs, and to me it is different.

Senator SHELBY. But, the same, you are treating securities differently—I mean you are treating the GSE-backed securities in a different way. You are basically weighting, weighing the haircut of 15 percent discount in a way of the value of those securities. Is that correct?

Ms. YELLEN. Well, because we think——

Senator SHELBY. Under Basel III.

Ms. YELLEN. We think they are somewhat less liquid than, say, Treasurys, and because they are somewhat less liquid, the markets in which they trade, there needs to be some haircut that they are not quite as good as cash or Treasurys in terms of meeting potential runs on a bank or liquidity drains. And to me that is an appropriate recognition of the difference in liquidity between mortgage-backed securities and Treasurys or cash.

Senator SHELBY. Fifteen percent is a pretty good number, though, isn't it?

Ms. YELLEN. It is something.

Senator SHELBY. Does it seem like a high number? Is that an arbitrary number that has been brought forth to risk weight something at a discount of 15 percent?

Ms. YELLEN. There are judgments that have been made throughout about what the appropriate rates of discount——

Senator SHELBY. Well, a lot of the banks—a lot of the smaller banks are concerned about this because they have bought a lot of GSE securities, and if they are going to be risk weighted adversely in their portfolio, it could cause them a problem, as you well know.

Ms. YELLEN. So we put this proposal out for comment, and, you know, we will certainly look at all the comments that——

Senator SHELBY. Well, look at it closely, is all I——

Ms. YELLEN. We will look at all the comments that come in and try to take that into account as we craft a final proposal.

Senator SHELBY. Thank you.

Thank you, Mr. Chairman.

Chairman JOHNSON. Chair Yellen, I want to thank you for your excellent testimony.

This hearing is adjourned.

[Whereupon, at 12:17 p.m., the hearing was adjourned.]

[Prepared statements and responses to written questions supplied for the record follow]:

PREPARED STATEMENT OF JANET L. YELLEN

CHAIR, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

FEBRUARY 27, 2014

Chairman Johnson, Senator Crapo and other Members of the Committee, I am pleased to present the Federal Reserve's semiannual *Monetary Policy Report* to the Congress. In my remarks today, I will discuss the current economic situation and outlook before turning to monetary policy. I will conclude with an update on our continuing work on regulatory reform. First, let me acknowledge the important contributions of Chairman Bernanke. His leadership helped make our economy and financial system stronger and ensured that the Federal Reserve is transparent and accountable. I pledge to continue that work.

Current Economic Situation and Outlook

The economic recovery gained greater traction in the second half of last year. Real gross domestic product (GDP) is currently estimated to have risen at an average annual rate of more than 3½ percent in the third and fourth quarters, up from a 1¾ percent pace in the first half. The pickup in economic activity has fueled further progress in the labor market. About 1¼ million jobs have been added to payrolls since the previous *Monetary Policy Report* last July, and 3¼ million have been added since August 2012, the month before the Federal Reserve began a new round of asset purchases to add momentum to the recovery. The unemployment rate has fallen nearly a percentage point since the middle of last year and 1½ percentage points since the beginning of the current asset purchase program. Nevertheless, the recovery in the labor market is far from complete. The unemployment rate is still well above levels that Federal Open Market Committee (FOMC) participants estimate is consistent with maximum sustainable employment. Those out of a job for more than 6 months continue to make up an unusually large fraction of the unemployed, and the number of people who are working part time but would prefer a full-time job remains very high. These observations underscore the importance of considering more than the unemployment rate when evaluating the condition of the U.S. labor market.

Among the major components of GDP, household and business spending growth stepped up during the second half of last year. Early in 2013, growth in consumer spending was restrained by changes in fiscal policy. As this restraint abated during the second half of the year, household spending accelerated, supported by job gains and by rising home values and equity prices. Similarly, growth in business investment started off slowly last year but then picked up during the second half, reflecting improving sales prospects, greater confidence, and still-favorable financing conditions. In contrast, the recovery in the housing sector slowed in the wake of last year's increase in mortgage rates.

Inflation remained low as the economy picked up strength, with both the headline and core personal consumption expenditures, or PCE, price indexes rising only about 1 percent last year, well below the FOMC's 2 percent objective for inflation over the longer run. Some of the recent softness reflects factors that seem likely to prove transitory, including falling prices for crude oil and declines in non-oil import prices.

My colleagues on the FOMC and I anticipate that economic activity and employment will expand at a moderate pace this year and next, the unemployment rate will continue to decline toward its longer-run sustainable level, and inflation will move back toward 2 percent over coming years. We have been watching closely the recent volatility in global financial markets. Our sense is that at this stage these developments do not pose a substantial risk to the U.S. economic outlook. We will, of course, continue to monitor the situation.

Monetary Policy

Turning to monetary policy, let me emphasize that I expect a great deal of continuity in the FOMC's approach to monetary policy. I served on the Committee as we formulated our current policy strategy and I strongly support that strategy, which is designed to fulfill the Federal Reserve's statutory mandate of maximum employment and price stability.

Prior to the financial crisis, the FOMC carried out monetary policy by adjusting its target for the Federal funds rate. With that rate near zero since late 2008, we have relied on two less-traditional tools—asset purchases and forward guidance—to help the economy move toward maximum employment and price stability. Both tools put downward pressure on longer-term interest rates and support asset prices. In turn, these more accommodative financial conditions support consumer spending, business investment, and housing construction, adding impetus to the recovery.

Our current program of asset purchases began in September 2012 amid signs that the recovery was weakening and progress in the labor market had slowed. The Committee said that it would continue the program until there was a substantial improvement in the outlook for the labor market in a context of price stability. In mid-2013, the Committee indicated that if progress toward its objectives continued as expected, a moderation in the monthly pace of purchases would likely become appropriate later in the year. In December, the Committee judged that the cumulative progress toward maximum employment and the improvement in the outlook for labor market conditions warranted a modest reduction in the pace of purchases, from $45 billion to $40 billion per month of longer-term Treasury securities and from $40 billion to $35 billion per month of agency mortgage-backed securities. At its January meeting, the Committee decided to make additional reductions of the same magnitude. If incoming information broadly supports the Committee's expectation of ongoing improvement in labor market conditions and inflation moving back toward its longer-run objective, the Committee will likely reduce the pace of asset purchases in further measured steps at future meetings. That said, purchases are not on a preset course, and the Committee's decisions about their pace will remain contingent on its outlook for the labor market and inflation as well as its assessment of the likely efficacy and costs of such purchases.

The Committee has emphasized that a highly accommodative policy will remain appropriate for a considerable time after asset purchases end. In addition, the Committee has said since December 2012 that it expects the current low target range for the Federal funds rate to be appropriate at least as long as the unemployment rate remains above 6 ½ percent, inflation is projected to be no more than a half percentage point above our 2 percent longer-run goal, and longer-term inflation expectations remain well anchored. Crossing one of these thresholds will not automatically prompt an increase in the Federal funds rate, but will instead indicate only that it had become appropriate for the Committee to consider whether the broader economic outlook would justify such an increase. In December of last year and again this January, the Committee said that its current expectation—based on its assessment of a broad range of measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments—is that it likely will be appropriate to maintain the current target range for the Federal funds rate well past the time that the unemployment rate declines below 6 ½ percent, especially if projected inflation continues to run below the 2 percent goal. I am committed to achieving both parts of our dual mandate: helping the economy return to full employment and returning inflation to 2 percent while ensuring that it does not run persistently above or below that level.

Strengthening the Financial System

I will finish with an update on progress on regulatory reforms and supervisory actions to strengthen the financial system. In October, the Federal Reserve Board proposed a rule to strengthen the liquidity positions of large and internationally active financial institutions.[1] Together with other Federal agencies, the Board also issued a final rule implementing the Volcker rule, which prohibits banking firms from engaging in short-term proprietary trading of certain financial instruments.[2] On the supervisory front, the next round of annual capital stress tests of the largest 30 bank holding companies is under way, and we expect to report results in March.

Regulatory and supervisory actions, including those that are leading to substantial increases in capital and liquidity in the banking sector, are making our financial system more resilient. Still, important tasks lie ahead. In the near term, we expect to finalize the rules implementing enhanced prudential standards mandated by section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. We also are working to finalize the proposed rule strengthening the leverage ratio standards for U.S.-based, systemically important global banks. We expect to issue proposals for a risk-based capital surcharge for those banks as well as for a long-term debt requirement to help ensure that these organizations can be resolved. In addition, we are working to advance proposals on margins for noncleared derivatives, consistent with a new global framework, and are evaluating possible measures to address financial stability risks associated with short-term wholesale funding. We

[1] See Board of Governors of the Federal Reserve System (2013), "Federal Reserve Board Proposes Rule to Strengthen Liquidity Positions of Large Financial Institutions," press release, October 24, *www.federalreserve.gov/newsevents/press/bcreg/20131024a.htm.*

[2] See Board of Governors of the Federal Reserve System, Commodity Futures Trading Commission, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, and Securities and Exchange Commission (2013), "Agencies Issue Final Rules Implementing the Volcker Rule," joint press release, December 10, *www.federalreserve.gov/newsevents/press/bcreg/20131210a.htm.*

will continue to monitor for emerging risks, including watching carefully to see if the regulatory reforms work as intended.

Since the financial crisis and the depths of the recession, substantial progress has been made in restoring the economy to health and in strengthening the financial system. Still, there is more to do. Too many Americans remain unemployed, inflation remains below our longer-run objective, and the work of making the financial system more robust has not yet been completed. I look forward to working with my colleagues and many others to carry out the important mission you have given the Federal Reserve.

Thank you. I would be pleased to take your questions.

RESPONSE TO WRITTEN QUESTION OF SENATOR HAGAN FROM JANET L. YELLEN

Q.1. One concern I've heard is the uncertainty surrounding potential designation as a systemically important financial institutions—in particular, how the Federal Reserve will regulate nonbank firms that are designated.

Will the Federal Reserve establish a framework for measuring the impact of designation on individual companies, their customers and the financial markets before moving forward with further designation for nonbank financial firms? Will there be opportunities for firms to adjust their business model so they can remedy systemic concerns?

A.1. Section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act or the Act) directs the Board of Governors of the Federal Reserve System (Board) to establish prudential standards for bank holding companies with total consolidated assets of $50 billion or more and for nonbank financial companies that the Financial Stability Oversight Council (Council) has determined will be supervised by the Board (nonbank financial companies supervised by the Board) in order to prevent or mitigate risks to U.S. financial stability that could arise from the material financial distress or failure, or ongoing activities of, large, interconnected financial institutions.

The Council considers the potential impact of its actions on financial markets, firms, and financial stability. For example, in considering whether to subject a nonbank financial company to Federal Reserve supervision under section 113 of the Dodd-Frank Act, the Council is required to consider 10 factors specifically determined by Congress and set forth in the statute related to the company's vulnerability to financial distress and its potential to transmit financial distress to other firms and markets. In this process, the Council engages in company-specific evaluations and discussions with the firm. The Council also annually reviews whether designated nonbank financial companies should continue to be subject to enhanced prudential standards. As part of that annual review, the Council considers any changes in the business activities of designated firms that would reduce the potential impact of material financial distress or failure of the firm on U.S. financial stability.

The Board recognizes that the companies designated by the Council may have a range of businesses, structures, and activities, and that the types of risks to financial stability posed by nonbank financial companies will likely vary. Following designation of a nonbank financial company for supervision by the Board, the Board intends to assess the business model, capital structure, and risk profile of the designated company to determine how the proposed enhanced prudential standards should apply, and if appropriate,

would tailor application of the standards by order or regulation to that nonbank financial company or to a category of nonbank financial companies. In applying the standards to a nonbank financial company, the Board will take into account differences among nonbank financial companies supervised by the Board and bank holding companies with total consolidated assets of $50 billion or more. For those nonbank financial companies that are similar in activities and risk profile to bank holding companies, the Board expects to apply enhanced prudential standards that are similar to those that apply to bank holding companies. For those that differ from bank holding companies in their activities, balance sheet structure, risk profile, and functional regulation, the Board expects to apply more tailored standards. The Board's ability to tailor capital requirements for companies designated by the Council is, however, limited substantially by section 171 of the Dodd-Frank Act, which requires the Board to subject such companies to capital requirements that are at least as stringent as those applicable to banks. The Board will ensure that nonbank financial companies receive notice and opportunity to comment prior to determination of their enhanced prudential standards.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR VITTER FROM JANET L. YELLEN

Q.1. Chairwoman Yellen, since the financial crisis, the implantation of Dodd-Frank, and industry consolidation, community banks are still facing many challenges that impend the continued success of this relationship-based lending model. Because independent research is so crucial in helping lawmakers and regulators understand and effectively shape laws and regulation affecting community banks, the fact that the Federal Reserve and Conference of State Bank Supervisors hosted a national community banking research and policy conference last year is laudable. I am glad that a similar event is planned for this year, and hope that, under your leadership the Federal Reserve will continue this partnership.

Do you support this effort encouraging community banking research, and do you believe that continued research in this area is beneficial and can better inform public policy?

A.1. I strongly support continued research to assist policymakers in understanding how successful community banks can contribute to the health of the U.S. economy. Better research on community banking issues should allow policymakers to make more effective supervisory and regulatory decisions that are appropriate to the unique characteristics of community banks. The inaugural research conference on Community Banking in the 21st Century that the Federal Reserve and Conference of State Bank Supervisors sponsored at the Federal Reserve Bank of St. Louis in October 2013 provided a unique opportunity for community bankers, academics, policymakers, and bank supervisors to discuss research findings and practical experience. I am pleased that planning is well under way for a similar conference in 2014, and my hope is that events such as these will serve as a catalyst for additional high-quality research that can inform effective policymaking with regard to community banks.

Q.2. What other ways can the Federal Reserve support and encourage independent research on the role community banks play in our economy?

A.2. Our newly instituted annual community banking research conference, which we co-sponsor with the Conference of State Bank Supervisors, is the primary way that the Federal Reserve can encourage independent research on the role community banks play in our economy. These conferences provide a unique opportunity for academics who are interested in community banking to present their research to a diverse audience, including not only other researchers, but also community bankers and bank regulators. The conferences facilitate conversations among these three groups that might not otherwise take place. These conversations can lead to future collaborations that benefit all parties involved. In addition, the annual conferences provide a known venue for presenting community banking research, and send a strong signal to academics that such research is highly valued by bankers and bank regulators. Beyond the conferences, the Federal Reserve can encourage research on community banking topics by providing opportunities for community banking researchers to present their work in seminars held at the Board of Governors or at Reserve Banks and to interact with Federal Reserve System staff.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR TOOMEY FROM JANET L. YELLEN

Q.1. There have been a lot of unintended consequences coming out of the Volcker Rule. I am concerned about one that hasn't gotten a lot of attention but could force institutions to take losses, have a harmful effect on the economy, and drive more assets to the shadow banking system. Congress included a special extended transition period in the Volcker Rule that was intended to allow preexisting "illiquid" private equity investments to run off naturally, without the need for forced fire-sales. I am concerned that the Federal Reserve may have defined an illiquid fund in such a way as to make it virtually impossible for organizations to take advantage of this transition period. I understand the Federal Reserve did not "re-finalize" its conformance period rule (which includes the illiquid fund definition) when the rest of the Volcker regulations were finalized. What is the Federal Reserve doing to take comments on this issue into account and to prevent institutions from being forced to sell these investments at a loss? Are you worried about these assets moving into the unregulated shadow banking system?

A.1. Congress determined that section 13 of the Bank Holding Company Act ("BHC Act") was necessary to promote and enhance the safety and soundness of banking entities and the financial stability of the United States by prohibiting banking entities from engaging in short-term proprietary trading of financial instruments and making certain types of investments in private equity funds and hedge funds, subject to certain exemptions.

By statute, the requirements of section 13 are subject to a conformance period that ended on July 21, 2014, absent action to extend the period by the Federal Reserve. The conformance period for

section 13 may be extended for up to three additional 1-year periods if, in the judgment of the Federal Reserve, an extension is consistent with the purposes of section 13 and would not be detrimental to the public interest. Additionally, the Federal Reserve may, upon application of a banking entity, extend for up to an additional 5 years the period during which a banking entity, to the extent necessary to fulfill a contractual obligation that was in effect on May 1, 2010, may take or retain its ownership interest in, or otherwise provide additional capital to, an illiquid fund.

On February 9, 2011, the Federal Reserve issued its final conformance rule as required under section 13(c)(6) of the BHC Act,[1] and stated that the Federal Reserve expected to review the final conformance rule after completion of the final rule implementing section 13 of the BHC Act, to determine whether modifications or adjustments to the rule are appropriate in light of the final rules adopted under that section. In October 2011, as part of proposing implementing rules for 13, the Federal Reserve requested comment on whether any of the conformance provisions in that rule should be revised.

Consistent with the statute and in order to give markets and firms an opportunity to adjust to the prohibitions and requirements of any implementing rules, the Federal Reserve in December 2013, exercised its statutory authority to extend the general conformance period under section 13 of the BHC Act until July 21, 2015, on the same date that the final implementing rules for section 13 were issued.[2]

Staff of the Federal Reserve has met with representatives of interested parties and is currently reviewing comments submitted on the conformance rule and definition of illiquid fund. These commenters have requested that the Federal Reserve broaden the definition of illiquid assets in the conformance rule and the meaning of what is "necessary to fulfill a contractual obligation" of the banking entity. The Federal Reserve is considering these comments in light of the final rule implementing section 13 to determine whether to revisit the conformance rule. To the extent that the Federal Reserve's conformance rule has unintended impacts, the Federal Reserve would evaluate and address those impacts within the parameters of the statute if possible, and otherwise to inform Congress.

Q.2.a. You may already be in receipt of a bi-partisan letter to which I am a signatory that raises concerns about new global capital standards being contemplated by the Financial Stability Board (FSB) for "internationally active insurance groups."

In the United States, unlike in Europe, policy holders are protected by State guaranty funds. Furthermore, U.S. insurance companies already comply with the capital standards requirements in

[1] See Conformance Period for Entities Engaged in Prohibited Proprietary Trading or Private Equity Fund or Hedge Fund Activities, 76 FR 8265 (Feb. 14, 2011).

[2] See Board Order Approving Extension of the Conformance Period (Dec. 10, 2013). On April 7, 2014, the Federal Reserve issued a statement that it intends to grant two additional 1-year extensions of the conformance period under section 13 of the BHC Act that would allow banking entities additional time to conform to the statute ownership interests in and sponsorship of collateralized loan obligations ("CLOs") in place as of December 31, 2013, that do not qualify for the exclusion in the final rule implementing section 13 of the BHC Act for loan securitizations. This would permit banking entities to retain ownership interests in and sponsorship of CLOs held as of that date until July 21, 2017.

European countries. The FSB's effort may be a solution in search of a problem.

A.2.a. In its July 2013 press release announcing the policy measures that would apply to the designated global systemically important insurers (GSIIs), the International Association of Insurance Supervisors (IAIS) stated that it considered a sound capital and supervisory framework for the global insurance sector more broadly to be essential for supporting financial stability, and that it planned to develop a comprehensive, group-wide supervisory and regulatory framework for internationally active insurance groups (IAIGs), including an international capital standard (ICS). The business of insurance has become increasingly global in the past few decades. The decision of the IAIS to develop an ICS for IAIGs reflects that trend, and has a parallel in the development of capital standards for internationally active banks by the Basel Committee on Banking Supervision (BCBS). The BCBS has been promulgating capital requirements for internationally active banks since the 1980s. The U.S. Federal banking agencies, which are members of the BCBS, have long contributed to and supported the work to develop common baseline prudential standards for global banks.

The Financial Stability Board (FSB) endorsed the proposed measures announced by the IAIS. That endorsement was consistent with the mission of the FSB to coordinate at the international level the work of national financial authorities and international standard setting bodies, including the IAIS, and to develop and promote the implementation of effective regulatory, supervisory and other financial sector policies in the interest of financial stability. State insurance supervisors, the National Association of Insurance Commissioners, the Federal Insurance Office, and more recently, the Federal Reserve, are members of the IAIS.

Q.2.b. I am not aware of any legal authority for the FSB to pursue the creation and adoption of capital standards for "internationally active insurance groups" in the United States. Will you commit to resisting efforts by others on the FSB to establish and impose new global capital standards that are at odds with the current regulatory and structural framework of U.S. insurers or would put U.S. insurers at a competitive disadvantage?

A.2.b. The Federal Reserve is fully committed to transparency and due process in the development and promulgation of regulatory standards. We support the practice of the IAIS to release for public comment its proposals for the basic capital requirements for globally systemically important insurers and expect that the IAIS will follow a similar process in the development of the ICS. It is important to note that neither the FSB nor the IAIS has the ability to implement requirements in any jurisdiction. Implementation in the United States would have to be consistent with U.S. law and comply with the administrative rulemaking process, including an opportunity for public comment.

RESPONSE TO WRITTEN QUESTIONS OF SENATOR COBURN FROM JANET L. YELLEN

Q.1.a. During your testimony, you indicated the FOMC will try to get a "firmer handle" on what is causing the recent soft economic reports and that the FOMC is open to reconsidering adjusting the pace of asset purchases accordingly.

In your estimate, how much lag time exists between Fed monetary policy adjustments and their impact on the real economy?

A.1.a. Estimates from standard econometric models of the U.S. economy suggest that monetary policy adjustments begin to affect growth of output and employment after a lag of about one quarter, and that the effects build for a few quarters thereafter. Standard estimates are that inflation responds with a longer lag. These estimates are derived from studies of the economy's responses to adjustments in the Federal Open Market Committee's ("Committee") target for the Federal funds rate in normal times. We have less evidence with which to estimate the lags in the effects of changes in asset purchases on the economy, but the lags seem unlikely to be shorter.

Q.1.b. Do you believe that the Fed's December announcement to begin the slow taper of asset purchases could have impacted employment data in January?

A.1.b. No. The reported sluggishness in job growth early this year appears to reflect unusually severe weather, at least in part. After assessing a wide range of indicators of economic activity and labor market conditions, the Committee judged that there is sufficient underlying strength in the U.S. economy to support a pickup in job growth and ongoing improvement in labor market conditions. Moreover, even with the reduction in the pace of its asset purchases, the Federal Reserve continues to add to its securities holdings, thereby putting downward pressure on longer-term interest rates and providing stimulus to the economy.

Q.1.c. If the FOMC decided to discontinue or even reverse the taper based on weak economic data, how long would you expect it to take for the decision to impact employment and economic growth?

A.1.c. I would expect such a decision to affect interest rates quickly; indeed interest rates likely would begin to decline in response to surprisingly weak economic data before the Committee even released its decision. Employment and output growth, in turn, likely would begin to respond to lower interest rates in a quarter or two.

Q.2. In your testimony, you mention that the reduction of large-scale asset purchases would depend on inflation and employment data along with the likely efficacy and costs of such purchases.

Can you explain what the Board's current view is on the efficacy and costs of additional LSAPs?

A.2. Based on research conducted by economists at the Federal Reserve and by many outside experts, our judgment is that LSAPs have put downward pressure on longer-term interest rates and helped to make financial conditions more accommodative. These changes in financial conditions, in turn, have had a meaningful effect in supporting the economic recovery and have helped keep in-

flation nearer the Committee's 2 percent goal. As we have noted many times, LSAPs and monetary policy generally are not a panacea for all of the Nation's economic difficulties. But our judgment is that our policy actions have helped to foster progress toward our statutory mandate of maximum employment and price stability.

The Committee has discussed the potential costs of LSAPs at length. Among the possible costs of LSAPs, policymakers have pointed to potential risks to financial stability; possible complications for the Federal Reserve's strategy for removing policy accommodation at the appropriate time, which could contribute to inflation pressures; and the possible implications of LSAPs for Federal Reserve net income in some scenarios. To date, all of these risks appear manageable. We are monitoring financial markets very carefully, but there is little evidence at this point of excessive risk-taking or broad-based reliance on leverage. We are confident that we have the tools necessary to remove policy accommodation at the appropriate time and inflation has been running below the Committee's 2 percent goal for some time and is expected to move up only gradually over time. Finally, we have examined the likely path of Federal Reserve net income in many alternative scenarios. In all but the most extreme cases, Federal Reserve income is expected to remain positive in coming years. Moreover, cumulative Federal Reserve net income over the entire period from 2008–2025 is virtually certain to be very large, and much larger than would have been the case in the absence of asset purchases. That said, the Federal Reserve takes all these possible risks of LSAPs very seriously and, as our statements suggest, an increase in our assessment of the likely costs of asset purchases would certainly be taken into account in judging the appropriate pace of such purchases.

Q.3.a. You have indicated your commitment to using forward guidance to inform market observers about Fed intentions in order to maintain a stimulative monetary footing. You and your predecessor have also repeatedly stated that any adjustments to the pace of asset purchases would be wholly dependent on the data.

Do you believe there is a contradiction between the Fed adamantly stating that any changes in quantitative easing will be data dependent while simultaneously stating that in the future the Fed will keep rates lower for longer than economic conditions would otherwise necessitate?

A.3.a. Both the Committee's forward guidance and its asset purchases have been designed to provide stimulus while being data dependent. The Committee has provided three types of forward guidance: qualitative guidance (extended period), date-based guidance, and guidance using economic thresholds. All have been designed to provide stimulus by conveying the Committee's expectation that the Federal funds rate target would be lower for longer than may otherwise have been expected without the guidance. However, the guidance has consistently been expressed as the Committee's current assessment of the policy it expects to be appropriate in the future given future economic conditions. Indeed the threshold-based guidance was explicitly data-dependent. Thus, the Committee always reserved the option to raise interest rates sooner or keep them unchanged for longer than indicated in the guidance. Asset

purchases have been designed to provide economic stimulus by putting downward pressure on longer-term interest rates, and have also been explicitly data dependent, especially the current flow-based asset purchase program, which the Committee has indicated will continue until there has been a substantial improvement in the outlook for the market, conditional on an ongoing review of their efficacy and costs.

Q.3.b. Does the Fed run the risk of losing credibility if you do not stick to your forward guidance in the coming years? Or, does the Fed run the danger of exercising monetary policy that is no longer appropriate for the economic conditions in the future in order to maintain the commitments a previous Board has already made?

A.3.b. The Committee's forward guidance is intended to provide the public with a better understanding of how it will conduct monetary policy in the future, but the guidance has consistently been expressed in terms of what policy would be appropriate in the future given the Committee's current outlook for future economic conditions. Indeed, the threshold-based forward guidance was explicitly data-contingent. If the Committee were to conduct policy in the future in a manner that was inconsistent with its past statements, that could harm its credibility. But those past statements do not constrain the Committee to conduct policy in the future in a fixed manner, regardless of the future prevailing economic conditions.

ADDITIONAL MATERIAL SUPPLIED FOR THE RECORD

For use at 8:30 a.m., EST
February 11, 2014

MONETARY POLICY REPORT

February 11, 2014

Board of Governors of the Federal Reserve System

Letter of Transmittal

Board of Governors of the
Federal Reserve System

Washington, D.C., February 11, 2014

The President of the Senate
The Speaker of the House of Representatives

The Board of Governors is pleased to submit its *Monetary Policy Report* pursuant to section 2B of the Federal Reserve Act.

Sincerely,

Janet L. Yellen

Janet L. Yellen, Chair

Statement on Longer-Run Goals and Monetary Policy Strategy

As amended effective January 28, 2014

The Federal Open Market Committee (FOMC) is firmly committed to fulfilling its statutory mandate from the Congress of promoting maximum employment, stable prices, and moderate long-term interest rates. The Committee seeks to explain its monetary policy decisions to the public as clearly as possible. Such clarity facilitates well-informed decisionmaking by households and businesses, reduces economic and financial uncertainty, increases the effectiveness of monetary policy, and enhances transparency and accountability, which are essential in a democratic society.

Inflation, employment, and long-term interest rates fluctuate over time in response to economic and financial disturbances. Moreover, monetary policy actions tend to influence economic activity and prices with a lag. Therefore, the Committee's policy decisions reflect its longer-run goals, its medium-term outlook, and its assessments of the balance of risks, including risks to the financial system that could impede the attainment of the Committee's goals.

The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee reaffirms its judgment that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate. Communicating this inflation goal clearly to the public helps keep longer-term inflation expectations firmly anchored, thereby fostering price stability and moderate long-term interest rates and enhancing the Committee's ability to promote maximum employment in the face of significant economic disturbances.

The maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market. These factors may change over time and may not be directly measurable. Consequently, it would not be appropriate to specify a fixed goal for employment; rather, the Committee's policy decisions must be informed by assessments of the maximum level of employment, recognizing that such assessments are necessarily uncertain and subject to revision. The Committee considers a wide range of indicators in making these assessments. Information about Committee participants' estimates of the longer-run normal rates of output growth and unemployment is published four times per year in the FOMC's Summary of Economic Projections. For example, in the most recent projections, FOMC participants' estimates of the longer-run normal rate of unemployment had a central tendency of 5.2 percent to 5.8 percent.

In setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of employment from the Committee's assessments of its maximum level. These objectives are generally complementary. However, under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate.

The Committee intends to reaffirm these principles and to make adjustments as appropriate at its annual organizational meeting each January.

Contents

Note: Unless otherwise noted, the time series in the figures extend through, for daily data, February 6, 2014; for monthly data, January 2014; and, for quarterly data, 2013:Q4. In bar charts, except as noted, the change for a given period is measured to its final quarter from the final quarter of the preceding period.

Summary

The labor market improved further during the second half of 2013 and into early 2014 as the economic recovery strengthened: Employment has increased at an average monthly pace of about 175,000 since June, and the unemployment rate fell from 7.5 percent in June to 6.6 percent in January. With these gains, payrolls have risen a cumulative 3¼ million and the unemployment rate has declined 1½ percentage points since August 2012, the month before the Federal Open Market Committee (FOMC) began its current asset purchase program. Nevertheless, even with these improvements, the unemployment rate remains well above levels that FOMC participants judge to be sustainable in the longer run.

Consumer price inflation remained low. The price index for personal consumption expenditures rose at an annual rate of only 1 percent in the second half of last year, noticeably below the FOMC's longer-run objective of 2 percent. However, some of the recent softness reflects factors that seem likely to prove transitory, and survey- and market-based measures of longer-term inflation expectations have remained in the ranges seen over the past several years.

Economic growth picked up in the second half of last year. Real gross domestic product is estimated to have increased at an annual rate of 3¾ percent, up from a 1¾ percent gain in the first half. Fiscal policy—which was unusually restrictive in 2013 as a whole—likely began to impose somewhat less restraint on the pace of expansion in the latter part of the year. Moreover, financial markets remained supportive of economic growth—as household net worth rose further, credit became more readily available, and interest rates remained relatively low—and economic conditions in the rest of the world improved overall despite recent turbulence in some emerging financial markets. As a result, growth in consumer spending, business investment, and exports all increased in the second half of last year.

On the whole, the U.S. financial system continued to strengthen. Capital and liquidity profiles at large bank holding companies improved further. In addition, the Federal Reserve and other agencies took further steps to enhance the resilience of the financial system, including strengthening capital regulations for large financial institutions and issuing a final rule implementing the Volcker rule, which restricts such firms' proprietary trading activities. Use of financial leverage was relatively restrained, and valuations in most asset markets were broadly in line with historical norms. Overall, the vulnerability of the system to adverse shocks remained at a moderate level.

With the economic recovery continuing, most Committee members judged by the time of the December 2013 FOMC meeting that they had seen meaningful, sustainable improvement in economic and labor market conditions since the beginning of the current asset purchase program, even while recognizing that the unemployment rate remained elevated and that inflation was running noticeably below the Committee's 2 percent longer-run objective. Accordingly, the FOMC concluded that a highly accommodative policy stance remained appropriate, but that in light of the cumulative progress toward maximum employment and the improvement in the outlook for labor market conditions, the Committee could begin to trim the pace of its asset purchases. Specifically, the Committee decided that, beginning in January, it would add to its holdings of longer-term securities at a pace of $75 billion per month rather than $85 billion per month as it had done previously. At its January meeting, the Committee continued to see improvements in economic conditions and the outlook and reduced the pace of its asset purchases by an additional $10 billion per

month, to $65 billion. The FOMC indicated that if incoming information continues to broadly support the Committee's expectation of ongoing improvement in labor market conditions and inflation moving back toward its longer-run objective, the Committee will likely reduce the pace of asset purchases in further measured steps at future meetings. Nonetheless, the Committee reiterated that asset purchases are not on a preset course, and that its decisions about their pace will remain contingent on the Committee's outlook for the labor market and inflation as well as its assessment of the likely efficacy and costs of such purchases. The FOMC also noted that its sizable and still-increasing holdings of longer-term securities should maintain downward pressure on longer-term interest rates, support mortgage markets, and help make broader financial conditions more accommodative.

At the same time, to emphasize its commitment to provide a high level of monetary accommodation for as long as needed to support continued progress toward maximum employment and price stability, the Committee enhanced its forward guidance regarding the federal funds rate. Over the year prior to December 2013, the FOMC had reaffirmed its view that a highly accommodative stance of monetary policy would remain appropriate for a considerable time after the asset purchase program ends and the economic recovery strengthens. In particular, the Committee indicated its intention to maintain the current low target range for the federal funds rate at least as long as the unemployment rate remained above 6½ percent, inflation between one and two years ahead was projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continued to be well anchored. At the December 2013 FOMC meeting, with the unemployment rate moving down toward the 6½ percent threshold, the Committee decided to provide additional information about how it expects its policies to evolve after the threshold is crossed. Specifically, the Committee indicated its anticipation that it will likely maintain the current federal funds rate target well past the time that the unemployment rate declines below 6½ percent, especially if projected inflation continues to run below its 2 percent goal.

At the time of the most recent FOMC meeting in late January, Committee participants saw the economic outlook as little changed from the time of their December meeting, when the most recent Summary of Economic Projections (SEP) was compiled. (The December SEP is included as Part 3 of this report.) Participants viewed labor market indicators as showing further improvement on balance—notwithstanding recent mixed readings—and overall economic activity as consistent with growing underlying strength in the broader economy. Even taking into account the recent volatility in global financial markets, participants regarded the risks to the outlook for the economy and the labor market as having become more nearly balanced in recent months. FOMC participants expected that, with appropriate policy accommodation, economic activity would expand at a moderate pace, and that the unemployment rate would gradually decline toward levels the Committee judges consistent with its dual mandate. The Committee recognized that inflation persistently below its 2 percent objective could pose risks to economic performance, and it is monitoring inflation developments carefully for evidence that inflation will move back toward its objective over the medium term.

Part 1
Recent Economic and Financial Developments

The labor market continued to improve over the second half of last year. Job gains have averaged about 175,000 per month since June, and the unemployment rate fell from 7.5 percent in June 2013 to 6.6 percent in January of this year. Even so, the unemployment rate remains well above Federal Open Market Committee (FOMC) participants' estimates of the long-run sustainable rate. Inflation remained low, as the price index for personal consumption expenditures (PCE) increased at an annual rate of 1 percent from June to December—noticeably below the FOMC's longer-run goal of 2 percent. However, transitory influences appear to have been partly responsible for the low readings on inflation last year, and measures of inflation expectations remained steady and near longer-run averages. Growth in economic activity picked up in the second half of 2013. Real gross domestic product (GDP) is estimated to have risen at an annual rate of 3¾ percent, up from a 1¾ percent rate of increase in the first half. Fiscal policy—which was unusually restrictive in 2013 as a whole—likely started to exert somewhat less restraint on economic growth in the second half of the year. In addition, household net worth rose further as key asset prices continued to increase, credit became more available while interest rates remained low, and economic conditions in the rest of the world improved overall in spite of recent turbulence in emerging financial markets. Consumer spending, business investment, and exports all increased more rapidly in the latter part of last year. In contrast, the recovery in the housing sector appeared to pause in the second half of last year following increases in mortgage interest rates in the spring and summer.

Domestic Developments

The labor market continued to improve, . . .

The labor market continued to improve over the second half of 2013. Payroll employment has increased an average of about 175,000 per month since June, roughly similar to the average gain over the first half of last year (figure 1). In addition, the unemployment rate declined from 7.5 percent in June to 6.6 percent in January of this year (figure 2). A variety of alternative measures of labor force underutilization—which include, in addition to the unemployed, those classified as discouraged, other individuals who are out of work and classified as marginally attached to the labor force, and individuals who have a job but would like to work more hours—have also improved in the past several months. Since August 2012—the month before the Committee began its current asset purchase program—total payroll employment has increased a cumulative 3¼ million, and the unemployment rate has declined 1½ percentage points.

1. Net change in payroll employment

Source: Department of Labor, Bureau of Labor Statistics.

2. Measures of labor underutilization

NOTE: U-4 measures total unemployed plus discouraged workers, as a percent of the labor force plus discouraged workers. Discouraged workers are a subset of marginally attached workers who are not currently looking for work because they believe no jobs are available for them. U-5 measures total unemployed plus all marginally attached to the labor force, as a percent of the labor force plus persons marginally attached to the labor force. Marginally attached workers are not in the labor force, want and are available for work, and have looked for a job in the past 12 months. U-6 measures total unemployed plus all marginally attached workers plus total employed part time for economic reasons, as a percent of the labor force plus all marginally attached workers. The shaded bar indicates a period of business recession as defined by the National Bureau of Economic Research.

SOURCE: Department of Labor, Bureau of Labor Statistics.

3. Labor force participation rate and employment-to-population ratio

NOTE: Both series are a percent of the population aged 16 and over.

SOURCE: Department of Labor, Bureau of Labor Statistics.

. . . although labor force participation remained weak, . . .

While the unemployment rate and total payroll employment have improved further, the labor force participation rate has continued to move lower on net (figure 3). As a result, the employment-to-population ratio, a measure that combines the unemployment rate and the labor force participation rate, has changed little during the past year. Although much of the decline in participation likely reflects changing demographics—most notably the increasing share in the population of older people, who have lower-than-average participation rates—and would have occurred even if the labor market had been stronger, some of the weakness in participation is also likely due to workers' perceptions of relatively poor job opportunities.

. . . considerable slack in labor markets remains, . . .

Despite its recent declines, the unemployment rate remains well above FOMC participants'

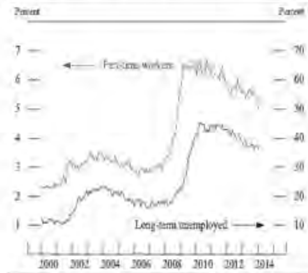
estimates of the long-run sustainable rate of unemployment and well above rates that prevailed prior to the recent recession. Moreover, beyond labor force participation, some other aspects of the labor market remain of concern. For example, the share of the unemployed who have been out of work longer than six months and the percentage of the workforce that is working part time but would like to work full time have declined only modestly over the recovery (figure 4). In addition, the quit rate—an indicator of workers' confidence in the availability of other jobs—remains low.

. . . and gains in compensation have been slow

The relatively weak labor market has also been evident in the behavior of wages, as the modest gains in labor compensation seen earlier in the recovery continued last year. The 12-month change in the employment cost index for private industry workers, which measures both wages and the cost to employers of providing benefits, has remained close to 2 percent throughout most of the recovery (figure 5). Similarly, average hourly earnings for all employees—the timeliest measure of wage developments—increased close to 2 percent over the 12 months ending in January, about the same pace as over the preceding year. Compensation per hour in the nonfarm business sector—a measure derived from the labor compensation data in the national income and product accounts (NIPA)—can be quite volatile even at annual frequencies, but, over the past three years, this measure has increased at an annual average pace of 2¼ percent, well below the average pace prior to the recent recession.

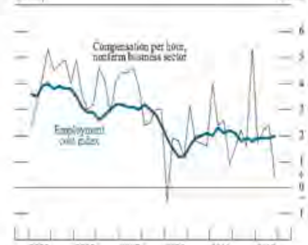
Productivity growth has also been relatively weak over the recovery. From the end of 2009 to the end of 2013, annual growth in output per hour in the nonfarm business sector averaged only 1¼ percent, considerably slower than the average rate before the recent

4. Long-term unemployed and part-time workers



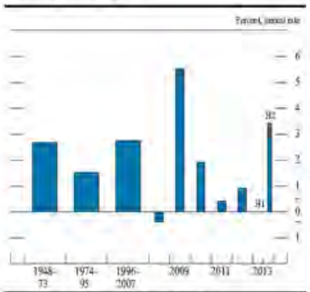
NOTE: The data are monthly. The long-term unemployed series shown is the percent of total unemployed persons who have been unemployed for 27 weeks or more. The part-time worker series is the percent of nonagricultural employees working part time for economic reasons.
SOURCE: Department of Labor, Bureau of Labor Statistics.

5. Measures of change in hourly compensation



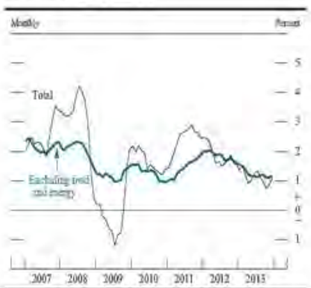
NOTE: For nonfarm business compensation, change is over four quarters; for the employment cost index, change is over the 12 months ending in the last month of each quarter.
SOURCE: Department of Labor, Bureau of Labor Statistics.

6. Change in output per hour



NOTE: The data are from the nonfarm business sector.
SOURCE: Department of Labor, Bureau of Labor Statistics.

7. Change in the chain-type price index for personal consumption expenditures



NOTE: The data extend through December 2013; changes are from one year earlier.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

recession (figure 6). However, with the recent strengthening in the pace of economic activity, productivity growth rose to an annual rate of nearly 3½ percent over the second half of last year.

Inflation was low . . .

Inflation remained low in the second half of 2013, with the PCE price index increasing at an annual rate of only 1 percent from June to December, similar to the increase in the first half and noticeably below the FOMC's longer-run objective of 2 percent (figure 7). Core PCE prices—or prices of PCE goods and services excluding food and energy—also increased at an annual rate of about 1 percent over the second half of 2013. Other measures of core consumer price inflation, such as the core consumer price index, were also low last year relative to norms prevailing in the years prior to the recent recession, though not as low as core PCE inflation.

Some of the recent softness in core PCE price inflation reflects factors that appear to have been transitory. In particular, after increasing at an average annual rate of 1¾ percent from the end of 2009 to the end of 2012, non-oil import prices fell 1¼ percent in 2013, pushed down by the effects of dollar appreciation and declining commodity prices during the first half of last year. These factors have abated since last summer, as the broad nominal value of the dollar has moved up only a little, on net, and the fall in overall nonfuel commodity prices has eased. In addition, during the final part of 2013, prices for a few industrial metals reversed part of their earlier declines, supported by a positive turnaround in Chinese demand.

Moreover, despite the relatively meager gains in wages, recent increases in the cost of labor needed to produce a unit of output (unit labor costs)—which reflects movements in both labor compensation and productivity and is a useful gauge of the influence of labor-related production costs on inflation—do not suggest

an unusual amount of downward pressure on inflation. Unit labor costs increased at an annual rate of 1½ percent over the past two years, just a little below their average prior to the recent recession.

Consumer energy and food prices changed relatively little over the second half of 2013. The spot price of Brent crude oil, after peaking in late August at nearly $120 per barrel, has been relatively stable in recent months, trading at about $110 per barrel since mid-September, as a continued increase in North American crude oil production has helped buffer the effects of some supply disruptions elsewhere (figure 8). Meanwhile, strong harvests have put downward pressure on food commodity prices, and, as a result, consumer food prices—which reflect both commodity prices and processing costs—were little changed in the second half of last year.

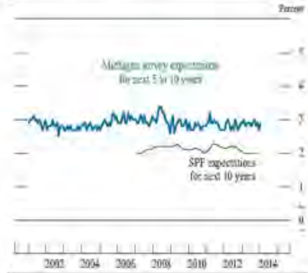
8. Prices of oil and nonfuel commodities

Note: The data are weekly averages of daily data through February 6, 2014. The price of oil is the spot price of Brent crude oil, and the price of nonfuel commodities is an index of 23 primary-commodity prices.
Source: Commodity Research Bureau.

. . . but inflation expectations changed little

The Federal Reserve monitors the public's expectations of inflation, in part because these expectations may influence wage- and price-setting behavior and thus actual inflation. Despite the weakness in recent inflation data, survey- and market-based measures of longer-term inflation expectations changed little, on net, over the second half of last year and have remained fairly stable in recent years. Median expected inflation over the next 5 to 10 years, as reported in the Thomson Reuters/University of Michigan Surveys of Consumers, was 2.9 percent in January, within the narrow range of the past decade (figure 9).[1] In the Survey of Professional Forecasters, conducted by the Federal Reserve Bank of Philadelphia, the median expectation for the annual rate of increase in the PCE price index over the next 10 years was 2 percent in the fourth quarter of 2013, similar to its level in recent years. Meanwhile, measures of medium- and

9. Median inflation expectations



Note: The Michigan survey data are monthly. The SPF data for inflation expectations for personal consumption expenditures are quarterly and extend from 2007:Q1 through 2013:Q4.
Source: Thomson Reuters/University of Michigan Surveys of Consumers; Survey of Professional Forecasters (SPF).

1. The question in the Michigan survey asks about inflation generally but does not refer to any specific price index.

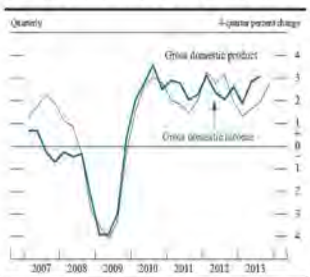
10. Inflation compensation

NOTE: Inflation compensation is the difference between yields on nominal Treasury securities and Treasury inflation-protected securities (TIPS) of comparable maturities, based on yield curves fitted to off-the-run nominal Treasury securities and on- and off-the-run TIPS. The 5-year measure is adjusted for the effect of indexation lags.
SOURCE: Federal Reserve Bank of New York; Barclays; Federal Reserve Board staff estimates.

11. Change in real gross domestic product

SOURCE: Department of Commerce, Bureau of Economic Analysis.

12. Gross domestic product and gross domestic income



NOTE: The gross domestic income data extend through 2013:Q3.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

longer-term inflation compensation derived from differences between yields on nominal and inflation-protected Treasury securities have remained within their respective ranges observed over the past several years (figure 10).

Growth in economic activity picked up

Real GDP is estimated to have increased at an annual rate of 3¾ percent over the second half of last year, up from a reported 1¾ percent pace in the first half (figure 11). Gross domestic income, or GDI, an alternative measure of economic output, increased a little more than 3 percent over the four quarters ending in the third quarter of last year (the most recent data available), 1 percentage point faster than the increase in GDP over this period (figure 12).[2]

Some of the strength in GDP growth in the second half of 2013 reflected a pickup in the pace of inventory investment, a factor that cannot continue indefinitely. But other likely more persistent factors influencing demand shifted in a more favorable direction as well. In particular, restraint from fiscal policy likely started to diminish in the latter part of last year. In addition, further increases in the prices of corporate equities and housing boosted household net worth, while credit became more broadly available to households and businesses and interest rates remained low. Moreover, the boom in oil and gas production continued. Finally, economic conditions in the rest of the world improved overall, notwithstanding recent market turmoil in some emerging market economies (EMEs). As a result, consumer spending, business investment, and exports all increased more rapidly in the latter part of the year, more than offsetting a slowing in the pace of residential investment.

2. Conceptually, GDI and GDP should be equal, but because they are measured with different source data, they can send different signals about growth in U.S. economic output.

Fiscal policy was a notable headwind in 2013, . . .

Relative to prior recoveries, fiscal policy in recent years has been unusually restrictive, and the drag on GDP growth in 2013 was particularly large. The expiration of the temporary payroll tax cut and tax increases for high-income households at the beginning of 2013 restrained consumer spending. Moreover, federal purchases were pushed down by the sequestration, budget caps on discretionary spending, and the drawdown in foreign military operations. As a result, real federal purchases, as measured in the NIPA, fell at an annual rate of more than 7 percent over the second half of the year (figure 13). Due to the government shutdown in October, which temporarily held down purchases in the fourth quarter, this decline was somewhat steeper than in the first half.[3]

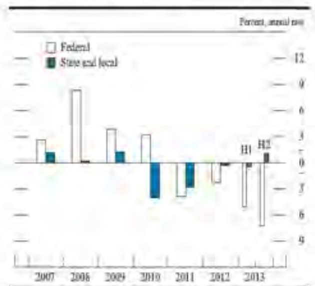
The federal budget deficit declined as a share of GDP for the fourth consecutive year in fiscal year 2013, reaching about 4 percent of GDP. Although down from nearly 10 percent in fiscal 2009, the fiscal 2013 deficit is still 1½ percentage points higher than its 50-year average. Federal receipts rose in fiscal 2013 but still were only 16¾ percent of GDP; federal outlays, while falling, remained elevated at 20¾ percent of GDP in the past fiscal year (figure 14). With the deficit still elevated, the debt-to-GDP ratio increased from 69 percent at the end of fiscal 2012 to 71 percent at the end of fiscal 2013 (figure 15).

. . . but fiscal drag appears to be easing

Although the expiration of emergency unemployment compensation at the beginning of this year will impose some fiscal restraint, fiscal policy is in the process of becoming less restrictive for GDP growth. Most importantly, the drag on growth in consumer spending

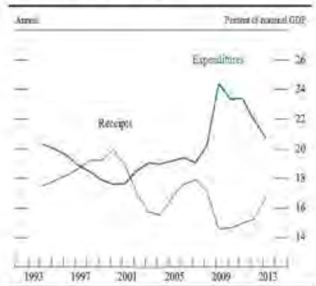
3. Through a reduction in hours worked by federal employees, the shutdown is estimated to have directly reduced real GDP growth about ¼ percentage point at an annual rate in the fourth quarter. This influence is likely to be reversed in the first quarter of 2014.

13. Change in real government expenditures on consumption and investment



SOURCE: Department of Commerce, Bureau of Economic Analysis.

14. Federal receipts and expenditures

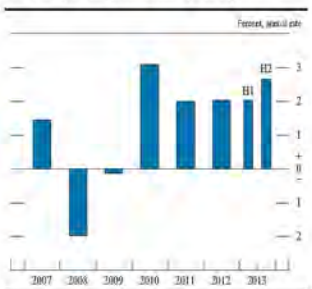


NOTE: The receipts and expenditures data are on a unified-budget basis and are for fiscal years (October through September); gross domestic product (GDP) is for the four quarters ending in Q3.
SOURCE: Office of Management and Budget.

15. Federal government debt held by the public

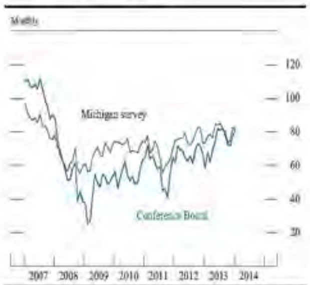
NOTE: The data are for the third quarter of each year. The data for gross domestic product (GDP) are at an annual rate.
SOURCE: Department of Commerce, Bureau of Economic Analysis; Department of the Treasury, Financial Management Service.

16. Change in real personal consumption expenditures



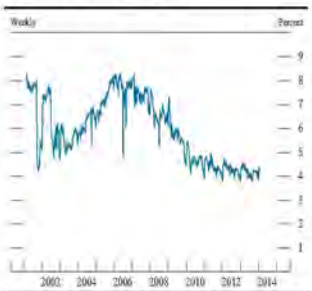
SOURCE: Department of Commerce, Bureau of Economic Analysis.

17. Consumer sentiment indexes



NOTE: The Conference Board data are indexed to 100 in 1985. The Michigan survey data are indexed to 100 in 1966.
SOURCE: The Conference Board; Thomson Reuters/University of Michigan Surveys of Consumers.

18. Interest rate for new auto loans



NOTE: The data extend through January 26, 2014.
SOURCE: Mintel.

from the tax increases at the beginning of 2013 has likely begun to wane. In addition, the Bipartisan Budget Act of 2013 will ease the limits on spending associated with the sequestration, and an increase in transfers from the Affordable Care Act should provide a boost to demand beginning this year. Also, fiscal conditions at the state and local levels of government have improved, and real purchases by such governments are estimated to have edged up in 2013 after several years of declines.

Consumer spending rose faster, supported by improvements in labor markets, . . .

After increasing at an annual rate of 2 percent in the first half of 2013, real PCE rose at a 2¾ percent rate over the second half (figure 16). Real disposable personal income—which had been pushed lower by the tax increases in the first quarter of 2013—moved up in the final three quarters of the year. Continued job gains helped improve the economic prospects of many households last year and boosted aggregate income growth. And the net rise in consumer sentiment in recent months suggests that greater optimism about the economy on the part of households should support consumer spending in early 2014 (figure 17).

. . . as well as increases in household net worth and low interest rates

Consumer spending was also likely supported by a significant increase in household net worth in the second half of last year, as prices of corporate equities and housing continued to rise. (For further information, see the box "Recent Changes in Household Wealth.") In addition, consumer credit for auto purchases (including loans to borrowers with subprime credit scores) and for education has remained broadly available. Moreover, interest rates for auto loans have stayed low (figure 18). And spending on consumer durables—which is quite sensitive to interest rates—rose at an annual rate of nearly 7 percent in the second

half of the year. Nevertheless, standards and terms for credit card debt have remained tight, and, partly as a result, credit card balances changed relatively little over the second half.

Business investment picked up . . .

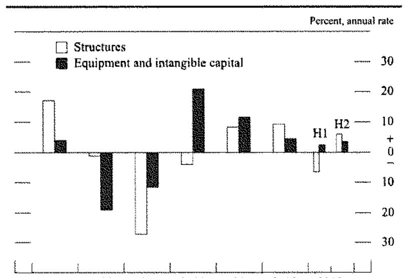
Business fixed investment (BFI) rose at an annual rate of 4¼ percent in the second half of 2013 after changing little in the first half. Investment in equipment and intangible capital rose at an annual rate of nearly 4 percent, while investment in nonresidential structures increased close to 6 percent (figure 19). On balance, national and regional surveys of purchasing managers suggest that orders for new equipment continued to increase at the turn of the year. However, still-high vacancy rates and relatively tight financing conditions likely continued to limit building investment; despite the recent increases, investment in buildings remains well below the peaks reached prior to the most recent recession.

The relatively modest rate of increase in the demand for business output has likely restrained BFI in recent quarters. In 2012 and the first half of 2013, business output increased at an annual rate of only 2½ percent. However, the acceleration in overall economic activity in the second half of 2013 may provide more impetus for business investment in the period ahead.

. . . as financing conditions for businesses were generally quite favorable

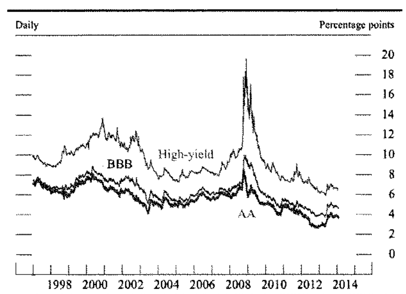
Moreover, the financial condition of nonfinancial firms remained strong in the second half of 2013, with profitability high and the default rate on nonfinancial corporate bonds close to zero. Interest rates on corporate bonds, while up since the spring, have stayed low relative to historical norms (figure 20). And net issuance of nonfinancial corporate debt appears to have remained strong in the second half of the year (figure 21). In addition, in recent quarters an increasing portion of the aggregate proceeds from the issuance of

19. Change in real business fixed investment



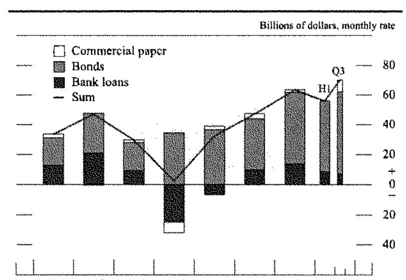
SOURCE: Department of Commerce, Bureau of Economic Analysis.

20. Corporate bond yields by securities rating



NOTE: The yields shown are yields on 10-year bonds.
SOURCE: BofA Merrill Lynch Global Research, used with permission.

21. Selected components of net financing for nonfinancial businesses



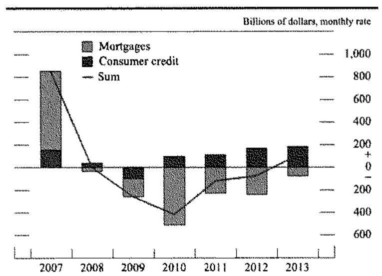
NOTE: The data for the components except bonds are seasonally adjusted.
SOURCE: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

Recent Changes in Household Wealth

American households' aggregate wealth fell more than $10 trillion in 2008 as home equity, the value of corporate stock, and other forms of net wealth all declined, but household wealth has increased in each of the five years since then (figure A).[1] Much of the recent increase in net worth reflects capital gains on corporate equity and real estate held by households. Since the end of 2008, stock market wealth has increased over $10 trillion, more than the amount that was lost during the recession. Home equity has recovered more slowly, rising about $3½ trillion in the past two years, which is about half the amount lost between 2006 and 2011. The increase in home equity affects a larger number of households than the increase in stock wealth because housing assets are distributed more broadly across the population than is stock ownership. More information about the distribution of household wealth will be available upon completion of the Federal Reserve Board's 2013 Survey of Consumer Finances.

1. The 2013 bar in the figure shows changes through the third quarter, the most recent quarter for which data are available. House prices and stock prices increased further in the fourth quarter, suggesting that the total increase in household net worth for 2013 will have been larger than the amount shown here.

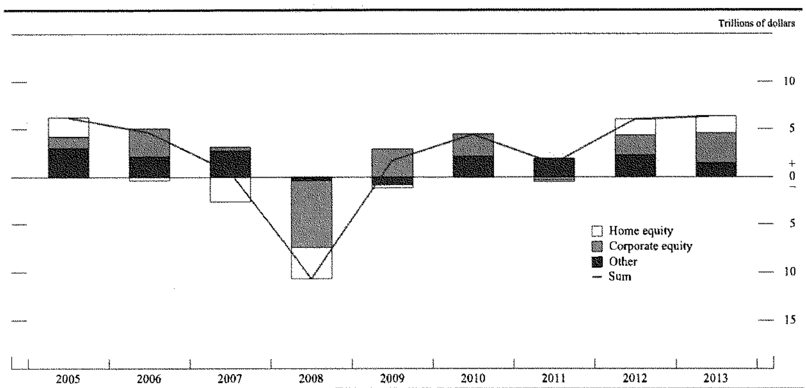
B. Changes in household debt



NOTE: Changes are calculated from year-end to year-end except 2013 changes, which are calculated from Q3 to Q3.
SOURCE: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

One reason home equity has increased is that house prices have risen in many areas; another is that aggregate mortgage debt has fallen because of foreclosures, paydowns, and other factors cited later. As shown in figure B, residential mortgage debt outstanding has fallen over $1 trillion since the end of 2007, making mortgages the major contributor to the phenomenon known as household deleveraging.

A. Changes in household net worth



NOTE: Other new wealth includes the sum of deposits, credit market instruments, mutual funds (excluding equities), security credit, pension entitlements, life insurance reserves, equity in noncorporate business (excluding real estate), and miscellaneous assets, net of total household liabilities (excluding mortgages). Changes are calculated from year-end to year-end except 2013 changes, which are through Q3 only.
SOURCE: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

In contrast to mortgages, consumer credit has expanded in each of the past four years. A detailed breakdown of consumer credit is shown in figure C. In recent years, growth in consumer credit has been driven by student loans and auto loans, while aggregate credit card balances have been relatively flat.

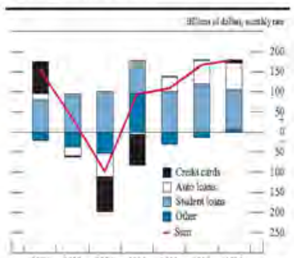
Despite the marked improvements in aggregate household net worth since the recession, many households' wealth positions have not recovered. Weak labor market conditions and the precipitous drop in home prices continue to weigh on many households' net worth. Figure D shows that a significant percentage of homeowners with a mortgage continue to be "underwater"—that is, they owe more than their homes are worth—and, for many, the depth of that negative equity is still substantial.

Nonetheless, the share of homeowners with negative equity is decreasing. By one estimate, roughly one in eight homeowners with a mortgage was underwater as of the third quarter of 2013—about half the share from two years earlier, though still significantly higher than the level that prevailed before house prices started falling in 2006.[2] Three primary factors have contributed to the decline in negative equity over the past two years. First, home prices have increased significantly. Second, homeowners' outstanding mortgage balances have been declining because of scheduled amortization, cash-in refinances, and mortgage modifications. Third, foreclosures and short sales have extinguished some homeowner liability.

Continued improvements in the home equity positions of households could have broader consequences for the economy. First, these improvements could help with the transmission of monetary policy. Banks are more willing to refinance mortgages when homeowners have positive equity, so improving home equity may allow more homeowners to take advantage of the current low interest rates. Second, because negative equity is associated with higher rates of foreclosure, these improvements should reduce the number of future foreclosures and the associated economic and social costs. Third, to the extent that households are able to borrow against their home equity to fund outlays, including those to finance small businesses, having more homeowners with positive equity could increase aggregate demand. Finally, because homeowners with negative equity may be less willing or able to sell their homes at market prices, declines in the negative equity share could help improve the operation of the housing market and increase mobility.

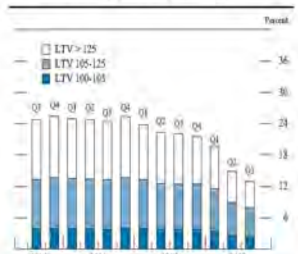
2. These estimates are from CoreLogic. Alternative estimates from Zillow show a somewhat larger share of underwater households, but one that also has been declining since early 2012.

C. Changes in consumer credit



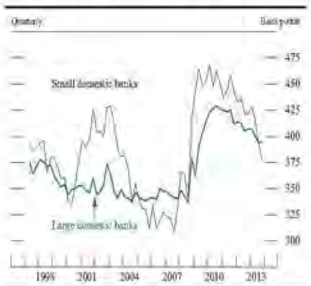
Note: Changes are calculated from year-end to year-end except 2013 changes, which are calculated from Q3 to Q3.
Source: Federal Reserve Board, Statistical Release Z.1, "Financial Accounts of the United States."

D. Percent of mortgages with negative equity



Note: Loan-to-value (LTV) ratio is outstanding mortgage debt as a percent of the value of the home.
Source: Staff calculations based on data provided by CoreLogic.

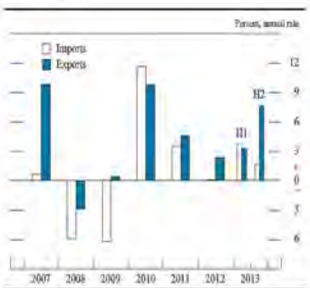
22. Average interest rate spreads on commercial and industrial loans of $1 million or less



NOTE: Adjusted for changes in nonprice loan characteristics. Spreads are computed over market interest rates on instruments with maturities comparable to each loan repricing interval. Observations are weighted by loan amount.

SOURCE: Staff calculations based on data from the Federal Reserve Board, Statistical Release E.2, "Survey of Terms of Business Lending."

23. Change in real imports and exports of goods and services



SOURCE: Department of Commerce, Bureau of Economic Analysis.

speculative-grade debt was reportedly intended for uses beyond the refinancing of existing debt.

Conditions in business loan markets also continued to improve. According to the Federal Reserve Board's January 2014 Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS), a modest net fraction of respondents indicated they had eased standards on commercial and industrial (C&I) loans over the second half of 2013.[4] In addition, according to the Federal Reserve Board's November 2013 Survey of Terms of Business Lending, loan rate spreads over banks' cost of funds have continued to decline. Financing conditions for small businesses also improved: Reductions in loan spreads have been most notable for the types of loans likely made to small businesses—that is, loans of $1 million or less or those originated by small domestic banks (figure 22). Standards on commercial real estate (CRE) loans extended by banks also eased over the second half of last year, moving back toward longer-run norms, according to the SLOOS. Still, standards for construction and land development loans, a subset of CRE loans, likely remained relatively tight.

Exports strengthened

Export demand also provided significant support to domestic economic activity in the second half of 2013 (figure 23). Real exports of goods and services rose at an annual rate of 7½ percent, consistent with improving foreign GDP growth in the latter part of the year and buoyed by soaring sales both of petroleum products—associated with the boom in U.S. oil production—and of agricultural goods. Across the major destinations, the robust increase in exports was supported by higher shipments to Canada, China, and other Asian emerging economies.

4. The SLOOS is available on the Board's website at www.federalreserve.gov/boarddocs/snloansurvey.

The growth of real imports of goods and services stepped down to an annual rate of 1½ percent in the second half of last year. Among the major categories, imports of non-oil goods and services rose more moderately, while oil imports continued to decline.

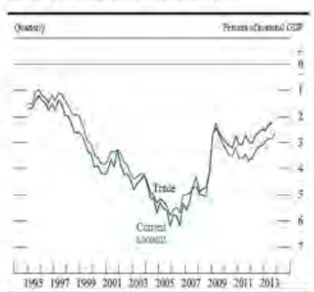
Altogether, real net trade added an estimated ¾ percentage point to GDP growth over the second half of 2013, whereas in the first half it made a small negative contribution. Owing in part to the improvement in net petroleum trade, the nominal trade deficit shrank, on balance, over the second half of 2013. That decrease contributed to the narrowing of the current account deficit to 2¼ percent of GDP in the third quarter, a level generally not seen since the late 1990s (figure 24).

The current account deficit continued to be financed by strong financial inflows in the third quarter of 2013, mostly in the form of purchases of Treasury and corporate securities by both foreign official and foreign private investors (figure 25). Partial monthly data suggest that these trends likely continued in the fourth quarter. U.S. investors continued to finance direct investment projects abroad at a rapid pace in the third quarter. Although U.S. purchases of foreign securities edged down in the summer, consistent with stresses observed in emerging markets, they appear to have rebounded in the final part of the year.

The recovery in housing investment paused with the backup in interest rates . . .

After increasing at close to a 15 percent annual rate in 2012 and the first part of 2013, residential investment was little changed in the second half of last year. Mortgage interest rates increased about 1 percentage point, to around 4¼ percent, over May and June of last year and have remained near this level

24. U.S. trade and current account balances



NOTE: The data for the current account extend through 2013:Q3.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

25. U.S. net financial inflows

NOTE: Negative numbers indicate a balance of payments outflow, generated when U.S. residents, on net, purchase foreign assets or when foreign residents, on net, sell U.S. assets. A negative number for "U.S. private" or "U.S. official" indicates an increase in foreign positions. U.S. official flows include the foreign currency acquired when foreign central banks drew on their swap lines with the Federal Reserve.
SOURCE: Department of Commerce, Bureau of Economic Analysis.

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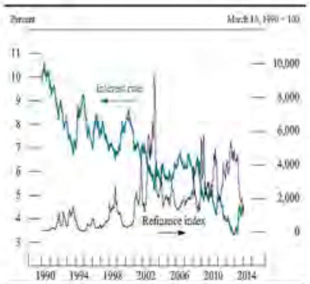
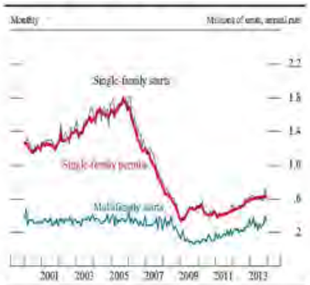
26. Mortgage interest rate and mortgage refinance index



NOTE: The interest rate data are weekly through February 5, 2014, and are for 30-year fixed rate mortgages. The refinance data are a seasonally adjusted 4-week moving average through January 31, 2014.
SOURCE: For interest rate, Federal Home Loan Mortgage Corporation; for refinance index, Mortgage Bankers Association.

27. Private housing starts and permits



NOTE: The data extend through December 2013.
SOURCE: Department of Commerce, Bureau of the Census.

since then (figure 26). Soon after the increase, mortgage refinancing dropped sharply, while home sales declined somewhat and the issuance of new single-family housing permits leveled off (figure 27). However, relative to historical norms, mortgage rates remain low, and housing is still quite affordable. Moreover, steady growth in jobs is likely continuing to support growth in housing demand, and, because new home construction is still well below levels consistent with population growth, the potential for further growth in the housing sector is considerable.

. . . and mortgage credit continued to be tight, . . .

Lending policies for home purchase remained quite tight overall, but there are some indications that mortgage credit is starting to become more widely available. A modest net fraction of SLOOS respondents reported having eased standards on prime residential loans during the second half of last year. And, in a sign that lending conditions for home refinance are becoming less restrictive, the credit scores of individuals refinancing mortgages at the end of last year were lower, on average, than scores for individuals refinancing earlier in the year. However, credit scores of individuals receiving mortgages for home purchases have yet to drop (figure 28).

. . . but house prices continued to rise

Home prices continued to rise in the second half of the year, although somewhat less quickly than in the first half (figure 29). Over the 12 months ending in December, home prices increased 11 percent. Much of the recent gain in home prices has been concentrated in areas that saw the largest declines in prices during the recession and early recovery, as prices in these areas likely dropped below levels consistent with the rents these homes could bring, spurring purchases by large and small investors who have converted some homes into rental properties.

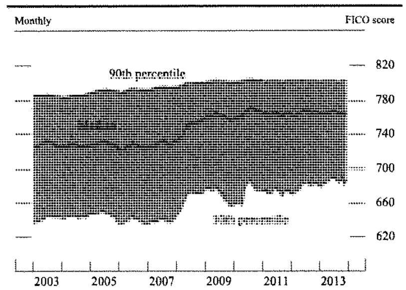
Financial Developments

The expected path for the federal funds rate through mid-2017 moved lower . . .

Market-based measures of the expected (or mean) future path of the federal funds rate through mid-2017 moved lower, on balance, over the second half of 2013 and early 2014, mostly reflecting FOMC communications that were broadly seen as indicating that a highly accommodative stance of monetary policy would be maintained for longer than had been expected. Measures of the expected policy path rose in the summer in conjunction with longer-term interest rates, as investors increasingly expected the Committee to start reducing the pace of asset purchases at the September FOMC meeting. However, those increases were more than retraced over the weeks surrounding the September meeting, in part because the decision to keep the pace of asset purchases unchanged and the accompanying communications by the Federal Reserve were viewed as more accommodative than investors had anticipated. Expectations for the path of the federal funds rate through mid-2016 have changed little, on net, since mid-October. Federal Reserve communications since last September, including the enhanced forward guidance included in the December and January FOMC statements, reportedly helped keep federal funds rate expectations near their earlier levels despite generally stronger-than-expected economic data and the modest reductions in the pace of Federal Reserve asset purchases announced at the December and January FOMC meetings.

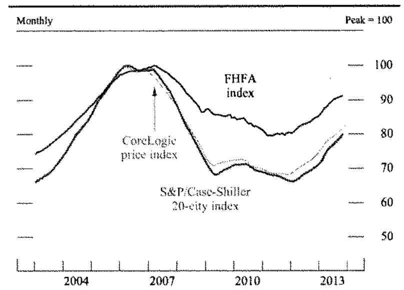
The *modal* path of the federal funds rate—that is, the values for future federal funds rates that market participants see as most likely—derived from interest rate options also shifted down for horizons through 2017, suggesting that investors may now expect the target federal funds rate to lift off from its current range substantially later than they had expected at the end of June 2013. Similarly, the most recent Survey of Primary Dealers conducted

28. Credit scores on new prime mortgages



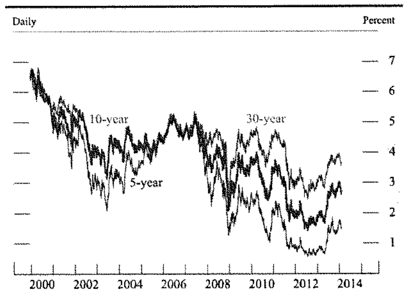
Note: The data extend through December 2013. Includes purchase mortgages only.
Source: McDash Analytics, LLC, a wholly owned subsidiary of Lender Processing Services, Inc.

29. Prices of existing single-family houses



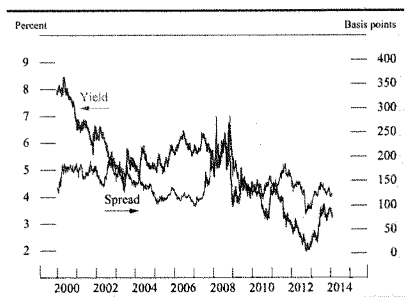
Note: The data for the FHFA index and the S&P/Case-Shiller index extend through November 2013, and the data for the CoreLogic index extend through December 2013. Each index has been normalized so that its peak is 100. Both the CoreLogic price index and the FHFA index include purchase transactions only. The S&P/Case-Shiller index reflects all arm's-length sales transactions in selected metropolitan areas.
Source: Federal Housing Finance Agency (FHFA); Case-Shiller data via S&P Capital IQ Solutions' Capital IQ Platform; staff calculations based on data provided by CoreLogic.

30. Yields on nominal Treasury securities



NOTE: The Treasury ceased publication of the 30-year constant maturity series on February 18, 2002, and resumed that series on February 9, 2006.
SOURCE: Department of the Treasury.

31. Yield and spread on agency mortgage-backed securities



NOTE: The data are daily. Yield shown is for the Fannie Mae 30-year current coupon, the coupon rate at which new mortgage-backed securities would be priced at par, or face, value. Spread shown is to the average of the 5- and 10-year nominal Treasury yields.
SOURCE: Department of the Treasury; Barclays.

by the Open Market Desk at the Federal Reserve Bank of New York just prior to the January FOMC meeting showed that dealers' expectations of the date of liftoff have moved out about two quarters since the middle of last year, to the fourth quarter of 2015.[5]

. . . while yields on longer-term securities increased but remained low by historical standards

Despite the lower expected path of the federal funds rate, yields on longer-term Treasury securities and agency mortgage-backed securities (MBS) rose moderately over the second half of 2013 (figures 30 and 31). These increases likely reflected economic data that were generally better than investors expected, as well as market adjustments to rising expectations that the Committee would start reducing the pace of its asset purchases, a step that was taken at the December FOMC meeting. Subsequently, yields declined amid flight-to-safety flows in response to recent emerging market turbulence (see the box "Financial Stress and Vulnerabilities in the Emerging Market Economies"). On net, yields on 5-, 10-, and 30-year nominal Treasury securities have increased between about 10 and 20 basis points from their levels at the end of June 2013. Yields on 30-year agency MBS edged up, on balance, over the same period.

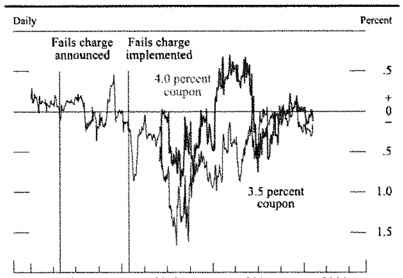
Nonetheless, yields on longer-term securities continue to be low by historical standards. Those low levels reflect several factors, including subdued inflation expectations as well as market perceptions of a still-modest global economic outlook. In addition, term premiums—the extra return investors expect to obtain from holding longer-term securities as opposed to holding and rolling over a sequence of short-term securities for the same period—while above the historically low levels observed prior to the bond market

5. The results of the Survey of Primary Dealers are available on the Federal Reserve Bank of New York's website at www.newyorkfed.org/markets/primarydealer_survey_questions.html.

selloff in the summer, remained within the low range they have occupied since the onset of the financial crisis, reflecting both the FOMC's large-scale asset purchases and strong demand for longer-term securities from global investors.

Indicators of Treasury market functioning were solid, on balance, over the second half of 2013 and early in 2014. For example, available data suggest that bid–asked spreads in the Treasury market stayed in line with recent averages. Moreover, Treasury auctions generally continued to be well received by investors. Liquidity conditions in the agency MBS market deteriorated somewhat for a time over the summer, amid heightened volatility, and a bit again toward year-end but have largely returned to normal levels since the turn of the year. Over the past seven months, the number of trades in the MBS market that failed to settle remained low, and implied financing rates in the "dollar roll" market—an indicator of the scarcity of agency MBS for settlement—have been stable (figure 32).[6]

32. Dollar-roll-implied financing rates (front month), Fannie Mae 30-year



NOTE: The 4.0 percent coupon data series begins on June 1, 2012.
SOURCE: J.P. Morgan.

Short-term funding markets continued to function well, on balance, despite some strains during the debt ceiling standoff

In the fall of 2013, many short-term funding markets were adversely affected for a time by concerns about the possibility of a delay in raising the federal debt limit. The Treasury bill market experienced the largest effect as yields on bills maturing between mid-October and early November rose sharply, some bill auctions saw reduced demand, and liquidity in this market deteriorated, especially for certain securities that were seen as being at risk of delayed payment. Conditions in other short-term funding markets, such as the market for repurchase agreements (repos), were also

6. A dollar roll transaction consists of a purchase or sale of agency MBS with a simultaneous agreement to sell or purchase substantially similar securities on a specified future date. The Committee directs the Desk to engage in these transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS purchases.

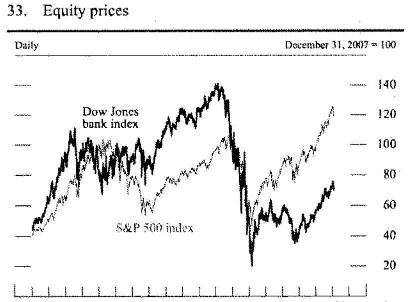
strained for a time. However, these effects eased quickly after an agreement to raise the debt limit was reached in mid-October, and, overall, the debt ceiling standoff left no permanent imprint on short-term funding markets.

On balance, since the end of June 2013, conditions in both secured and unsecured short-term funding markets have changed little, with many money market rates remaining near the bottom of the ranges they have occupied since the federal funds rate first reached its zero lower bound. Unsecured offshore dollar funding markets generally did not exhibit any signs of stress. Rates on asset-backed commercial paper and unsecured financial commercial paper for the most part also stayed low. In the repo market, rates for general collateral Treasury repos also were low, consistent with reduced financing activities of dealers. These rates declined noticeably at year-end, leading to increased participation in the Federal Reserve's overnight reverse repurchase agreement operations (see Part 2 of this report). Overall, year-end pressures in short-term funding markets were modest and roughly in line with experiences during other years since the financial crisis.

Broad equity price indexes increased further and risk spreads on corporate debt declined . . .

Boosted by improved market sentiment regarding the economic outlook and the FOMC's sustained highly accommodative monetary policy, broad measures of equity prices continued posting substantial gains through the end of 2013. Around the turn of the year, however, investor sentiment deteriorated amid resurfacing concerns about emerging financial markets, and equity prices retraced some of their earlier increases. As of early February, broad measures of equity prices were more than 10 percent higher, on net, than their levels in the middle of 2013 (figure 33). Consistent with the developments in equity markets, the spreads of yields on corporate bonds to yields on

33. Equity prices



SOURCE: Dow Jones bank index and Standard & Poor's 500 index via Bloomberg.

Treasury securities of comparable maturities have narrowed, on net, since the middle of 2013. Spreads on syndicated loans have also narrowed some, and issuance of leveraged loans, boosted by strong demand from collateralized loan obligations, was generally strong in the second half of 2013.

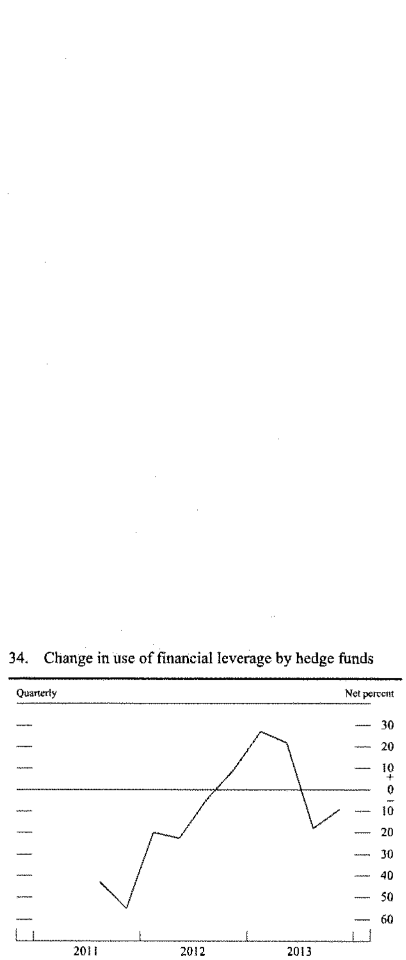
While some broad equity price indexes touched all-time highs in nominal terms since the middle of 2013 and valuation metrics in some sectors appear stretched, valuation measures for the overall market are now generally at levels not far above their historical average levels, suggesting that, in aggregate, investors are not excessively optimistic in their attitudes toward equities. Implied volatility for the S&P 500 index, as calculated from option prices, generally remained low over the period; it has risen since early January but remains below the recent high reached during the debt ceiling standoff in the fall.

. . . and market sentiment toward financial institutions continued to strengthen as their capital and liquidity profiles improved

Market sentiment toward the financial sector continued to strengthen in the second half of 2013, reportedly driven in large part by improvements in banks' capital and liquidity profiles, as well as further improvements in asset quality. On average, equity prices of large domestic banks and insurance companies performed roughly in line with broader equity indexes (figure 33). The spreads on the credit default swap (CDS) contracts written on the debt of these firms generally narrowed. Among nonbank financial institutions, many hedge funds significantly underperformed benchmark indexes in the second half of 2013 and, according to responses to the Federal Reserve Board's December Senior Credit Officer Opinion Survey on Dealer Financing Terms, have reduced their use of leverage on net (figure 34).[7] The industry as a whole

7. The Senior Credit Officer Opinion Survey on Dealer Financing Terms is available on the Board's website at www.federalreserve.gov/econresdata/releases/scoos.htm.

34. Change in use of financial leverage by hedge funds



NOTE: The data begin in 2011:Q3. Net percent equals the percent of dealers that reported an increase in the use of leverage (chose the response "increased considerably" or "increased somewhat") minus the percent of dealers that reported a decrease in the use of leverage (chose the response "decreased considerably" or "decreased somewhat").

SOURCE: Federal Reserve Board, Senior Credit Officer Opinion Survey on Dealer Financing Terms.

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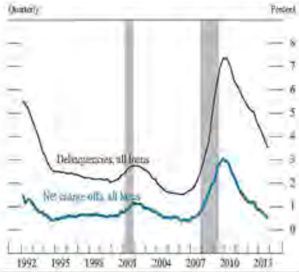
35. Delinquency and charge-off rates for commercial banks



NOTE: The data extend through 2013:Q3. The delinquency rates are the percent of loans 30 days or more past due or not accruing interest. The net charge-off rates are the percent of loans charged off net of recoveries. The shaded bars indicate a period of business recession as defined by the National Bureau of Economic Research.
SOURCE: Federal Financial Institutions Examination Council, FFIEC 031/041, "Consolidated Reports of Condition and Income for Commercial Banks" (Call Reports).

36. Change in total bank credit

NOTE: The data are seasonally adjusted.
SOURCE: Federal Reserve Board, Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States."

continued to see strong inflows, however, bringing its assets under management to an all-time high by the end of 2013.

Standard measures of profitability of bank holding companies (BHCs) were little changed in the third quarter of 2013, as large reductions in income from mortgage originations and revenue from fixed-income trading, as well as a sharp increase in litigation expenses, were offset primarily by decreases in provisions for loan losses and in employee compensation. Asset quality continued to improve for BHCs, with delinquency rates declining across a range of asset classes and the industry's net charge-off rate now close to pre-crisis levels (figure 35). Net interest margins remained about unchanged over the same period. (For further discussion of the financial condition of BHCs, see the box "Developments Related to Financial Stability.") Meanwhile, aggregate credit provided by commercial banks inched up in the second half of 2013 following the rise in longer-term interest rates (figure 36). Strong growth in loan categories that are more likely to have floating interest rates or shorter maturities—including C&I, CRE, and auto loans—was partly offset by runoffs in assets that have longer duration and so are more sensitive to increases in interest rates—including residential mortgages and some securities.

Financial conditions in the municipal bond market generally remained stable

Yields on 20-year general obligation municipal bonds rose since June 2013. However, the spreads of municipal bond yields over those of comparable-maturity Treasury securities generally fell over the same period, and CDS spreads on debt obligations of individual states were generally little changed and remained at moderate levels.

Nevertheless, significant financial strains have been evident for some issuers. For example,

the City of Detroit filed for bankruptcy in July 2013, making it the largest municipal bankruptcy filing in U.S. history. In addition, the prices of bonds issued by Puerto Rico continued to reflect the substantial financial pressures facing the territory and the spreads for five-year CDS contracts written on the debt issued by the territory soared. In early February, some of the territory's bonds were downgraded to below investment grade.

M2 rose briskly

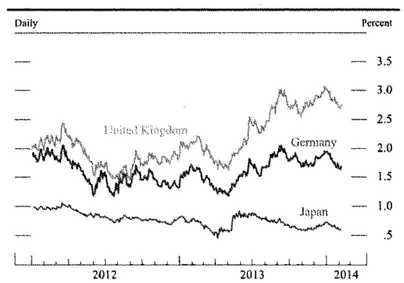
M2 has increased at an annual rate of about 7½ percent since June, faster than the pace registered in the first half of 2013. Flows into M2 picked up amid the selloff in fixed-income markets in the summer, which prompted large outflows from bond funds, as well as the uncertainty about the passage of debt limit legislation in the fall, which appeared to have led some institutional investors to shift from money fund shares to bank deposits. Following the resolution of the fiscal standoff, M2 growth slowed significantly as investors reallocated out of cash positions.

International Developments

Bond yields rose sharply in some emerging market economies, but were flat to down in most advanced foreign economies

Foreign long-term bond yields rose significantly from May of last year through most of the summer, as expectations of an imminent reduction in the pace of large-scale asset purchases by the Federal Reserve intensified (figure 37). In many EMEs, yields stabilized after the September FOMC meeting. However, in a handful of vulnerable EMEs, sovereign yields continued to exhibit outsized increases—particularly in Brazil and Turkey—and, more recently, EME yields generally moved up as several EMEs experienced heightened financial

37. 10-year nominal benchmark yields



SOURCE: Bloomberg.

Developments Related to Financial Stability

Since the previous *Monetary Policy Report*, the Federal Reserve and other agencies took further regulatory steps to improve the safety of the financial system, including strengthening capital regulations, proposing new quantitative liquidity requirements for large financial institutions, and issuing a final rule implementing the Volcker rule, which restricts the proprietary trading activities of such firms. Moreover, the Federal Reserve added to the number of large bank holding companies (BHCs) evaluated by annual stress tests and has begun to supervise the nonbank financial companies Prudential; American International Group, Inc., or AIG; and GE Capital as a result of their designation by the Financial Stability Oversight Council as systemically important financial institutions. The vulnerability of the financial system to adverse shocks remained at a moderate level, as capital profiles at large BHCs improved further, use of financial leverage was relatively restrained, and valuations in most asset markets were broadly in line with historical norms. The Federal Reserve will continue its comprehensive monitoring of financial vulnerabilities.

The financial strength of the banking sector improved last year. BHCs have stabilized their capital ratios at levels significantly higher than prior to the financial crisis and roughly in line with new, tougher regulatory standards. For example, the ratio of Tier 1 common equity to risk-weighted assets at all BHCs has been around 13 percent, on average, over the past two years, 4 percentage points higher than the average prior to 2009. Moreover, the aggregate rate of charge-offs and delinquent loans continued to fall, reflecting improvement in the quality of loans originated and the strengthening in household and business balance sheets that has accompanied the economic recovery. Thirty large BHCs are currently undergoing the stress tests mandated by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act), the summary results of which will be released in March. These stress tests are supervisory tools that the Federal Reserve uses to help ensure that financial institutions have robust capital-planning processes and can maintain adequate capital even following an extended period of adverse macroeconomic conditions. Last year's stress tests found that large BHCs had continued to increase their resilience to adverse economic conditions since the financial crisis, and the ongoing testing regimen encourages BHCs' efforts to further improve their capital-planning processes. In addition, large BHCs' dependence on short-term funding, which proved highly unreliable during the crisis, continued to decrease last year.

At the same time, litigation expenses at large BHCs increased. During 2013, several BHCs entered into various consent orders and regulatory settlements that stemmed from their actions related to the financial crisis. Some, but not all, of the litigation was due to offerings of mortgage-backed securities (MBS). Civil and criminal penalties resulted in significant increases to noninterest expense items that diminished net profits for the year. One BHC saw its net profit turn negative in the third quarter of 2013 as a result of litigation expenses of more than $10 billion, or 16 percent of total expenses for the period. Although the analyst community believes that litigation expenses should decrease, the risk to profitability remains.

Market-based measures indicate that banks are seen by investors as stronger. Bank stock prices have continued to rise, on net, and premiums on BHC credit default swaps (CDS) remain relatively low. Similarly, systemic risk measures for these firms—which also are based on the correlations between their stock prices and the broader market—continued to decline.

More broadly, aggregate measures of financial leverage, including the use of short-term wholesale debt, have remained subdued. The provision and use of dealer-intermediated leverage to fund securities appear moderate. In addition, while issuance in private securitization markets has continued to rebound, it is far below the peak reached before the crisis. Of particular note was the growth in collateralized loan obligations that securitize pools of leveraged loans. Regulators have addressed some risks posed by shadow banking—financial intermediation outside the insured depository system; steps in this regard include requiring banks

to recognize exposures to off-balance-sheet vehicles and to hold liquidity buffers when they provide credit or liquidity facilities. Still, it is important to make progress on other ongoing reform efforts to fix remaining structural vulnerabilities in short-term funding markets.

While the extended period of low interest rates has contributed to improved economic conditions, it could also lead investors to "reach for yield" through, for example, excessive leverage, duration risk, or credit risk. Prices for corporate equities have risen and spreads for corporate bonds have narrowed, but valuations for broad indexes for these markets do not appear stretched by historical standards. Some reach-for-yield behavior is evident in the lower-rated corporate debt markets. Over the past year, issuance of syndicated leveraged loans and high-yield bonds has surged and underwriting standards have deteriorated. Federal banking regulators issued supervisory guidance on leveraged lending practices, and followed up with banks in the fall, in order to mitigate the buildup of risky debt at banks.

The rise in interest rates and volatility since last spring may have led investors to adjust their risk positions. For example, estimated term premiums on longer-term Treasury securities rose, and intermediate and long-term bond mutual funds have experienced sizable outflows since the spring, after receiving strong inflows for the past several years. Increasing interest rates caused losses for real estate investment trusts specializing in agency MBS (agency REITs), which fund purchases of agency MBS mostly using relatively short-term repurchase agreements, implying extensive maturity transformation. The rise in interest rates prompted agency REITs to sell assets, reducing the overall amount of leverage used in the agency MBS market. At the largest banking firms, supervisors have been evaluating interest rate risk and are working with institutions to improve their risk-management practices so that they are prepared for unexpected changes in interest rates.

Important regulatory steps have been taken since the previous report, of which several are highlighted here. First, together with other federal agencies, the Federal Reserve issued a final rule implementing the Volcker rule designed to further reduce moral hazard in the financial system. The Volcker rule prohibits banking entities from engaging in short-term proprietary trading in securities, derivatives, commodity futures, and options on these instruments. The rule also imposes limits on banking entities' investments in hedge funds and private equity funds. Exemptions are provided for certain activities, including market making, underwriting, hedging, trading in government obligations, insurance company activities, and organizing and offering hedge funds or private equity funds for clients.

Furthermore, the Federal Reserve Board recently proposed a rule that would strengthen the liquidity positions of large and internationally active financial institutions by enforcing a quantitative liquidity requirement, called the liquidity coverage ratio, for the first time. Liquidity is essential to a bank's viability and the smooth functioning of the financial system. In conjunction with other reforms, this new rule would foster a more resilient and safer financial system.

In addition, the Federal Reserve Board, after completing the regulations to implement Basel III and Dodd-Frank Act regulatory capital reforms in July, is working to finalize the remaining enhanced prudential standards mandated by section 165 of the Dodd-Frank Act, with stricter regulatory and supervisory requirements for large BHCs and foreign banking organizations with a U.S. presence. The rules include requirements for risk-based capital, leverage, liquidity, and stress tests. The Federal Reserve also is working to propose a regulation to implement the Basel Committee on Banking Supervision risk-based capital surcharge framework for global systemically important banks.

Finally, the Federal Reserve and other financial regulatory agencies are working to move forward earlier proposals to address risks from derivatives transactions, now that a global framework for margining noncleared derivatives has been established by the Basel Committee.

38. U.S. dollar exchange rate against broad index and selected major currencies

NOTE: The data are in foreign currency units per dollar.
SOURCE: Federal Reserve Board, Statistical Release H.10, "Foreign Exchange Rates."

stresses (see the box "Financial Stress and Vulnerabilities in the Emerging Market Economies"). Rates in the advanced foreign economies (AFEs) rose slightly on balance during the second half of 2013, with improved economic conditions generally supporting yields. In particular, bond yields increased in the United Kingdom as unemployment fell more quickly than anticipated. In the euro area, yields were little changed, as below-target inflation led the European Central Bank (ECB) to cut its main refinancing rate a further 25 basis points in November. In contrast, Japanese government bond yields were down modestly, on net, since mid-July, in part as market participants anticipated that the Bank of Japan (BOJ) would expand the size of its asset purchase program. Over the past two weeks, however, AFE sovereign yields in general declined somewhat, as market participants pulled back from risky assets.

The dollar has appreciated a little on net

The broad nominal value of the dollar is up a little, on net, since last summer (figure 38). The dollar depreciated against both the euro and the British pound in the second half of the year, as macroeconomic conditions improved in Europe and as financial stresses and the associated flight to safety continued to abate. However, the dollar has appreciated sharply against the Japanese yen since October, in part reflecting anticipations of an expansion in the BOJ's asset purchase program, although it retraced somewhat in recent weeks amid the recent turbulence in emerging financial markets. The U.S. dollar also appreciated against the currencies of some vulnerable EMEs amid higher long-term yields in the United States, and, more recently, as market participants expressed concerns about developments in several economies (figure A in box on EMEs). EME-dedicated bond and equity funds experienced outflows over the second half of last year and into 2014, suggesting a reduced willingness by investors to maintain exposures to EMEs. In an attempt to curb the depreciation of their currencies,

central banks in some EMEs, such as Brazil and Turkey, intervened in currency markets.

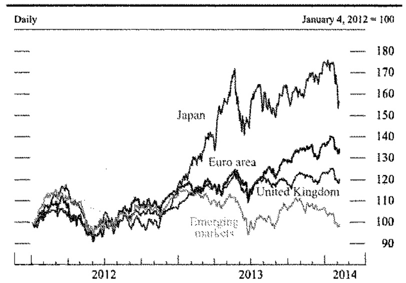
During the second half of 2013, equity indexes in the AFEs added considerably to earlier gains, likely reflecting the improved economic outlook (figure 39). Over the year as a whole, equity markets in Japan outperformed other foreign indexes, increasing more than 50 percent. Since the end of last year, however, AFE equity indexes have reversed part of their earlier gains, with the decrease coinciding with heightened financial volatility in the EMEs. Equity markets in the EMEs, after underperforming those in the AFEs during the second half of last year, have also fallen more recently.

Activity in the advanced foreign economies continued to recover . . .

Indicators suggest that economic growth in the AFEs edged higher in the second half of 2013, supported by diminished fiscal drag and further easing of European financial stresses (figure 40). The euro area continued to pull slowly out of recession in the third quarter, with some of the most vulnerable economies returning to positive growth, but unemployment remained at record levels. Real GDP growth in the United Kingdom picked up to a robust 3 percent pace in the second half of last year, driven in part by improving household and business sentiment, and Canadian growth rebounded in the third quarter after being restrained by floods that impeded economic activity in the second quarter. Japanese GDP growth stepped down in the third quarter from the rapid 4 percent pace registered in the first half, as exports dipped and household spending moderated, but data on manufacturing and exports suggest that growth rebounded toward year-end.

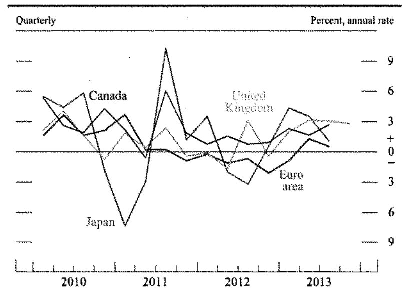
Amid stronger growth and rising import prices, Japanese inflation moved above 1 percent for the first time since 2008. In contrast, 12-month rates of inflation fell below 1 percent in

39. Equity indexes for selected foreign economies



SOURCE: For emerging markets, Morgan Stanley Emerging Markets MXEF Capital Index; for the euro area, Dow Jones Euro STOXX Index; for Japan, Tokyo Stock Exchange (TOPIX); all via Bloomberg.

40. Real gross domestic product growth in selected advanced foreign economies



NOTE: The Canada, Japan, and euro area data extend through 2013:Q3.
SOURCE: For Canada, Statistics Canada; for the euro area, Eurostat; for Japan, Cabinet Office of Japan; for the United Kingdom, Office for National Statistics.

Financial Stress and Vulnerabilities in the Emerging Market Economies

Many emerging market economies (EMEs) have experienced heightened financial stresses since April of last year. EME-dedicated international bond and equity funds sustained substantial outflows, and many EME currencies depreciated sharply against the dollar (figure A). At the same time, EME government bond yields rose abruptly and by much more than U.S. Treasury bond yields. Financial conditions in the EMEs generally stabilized after September, but financial stresses have flared up again in recent weeks, with many currencies experiencing another bout of depreciation.

The stresses that arose in the middle of last year appeared to be triggered to a significant degree by Federal Reserve communications indicating that the Federal Reserve would likely start reducing its large-scale asset purchases later in the year. Some of the selloff in EME assets may have been due to the unwinding of carry trades that investors had entered into earlier to take advantage of higher EME interest rates than those prevailing in the advanced economies. These trades appeared profitable so long as EME currencies remained stable or were expected to appreciate. But when anticipations of a slowing in the pace of Federal Reserve asset purchases led to higher U.S. interest rates as well as higher market volatility, these trades may have been quickly reversed, engendering sharper declines in EME currencies and asset prices.

In December, when the Federal Reserve actually announced a reduction in asset purchases, the reaction of financial markets in the EMEs was relatively muted. Then, in late January, volatility in these markets returned. Unlike last summer, there was little change in expectations regarding U.S. monetary policy during this time. Rather, a few adverse developments—including a weaker-than-expected reading on Chinese manufacturing, a devaluation of the Argentine peso, and Turkey's intervention to support its currency—triggered the renewed turbulence in the EME financial markets. This turbulence appeared to spill over to bond and equity markets in advanced economies, as market participants pulled back from risky assets.

Both last year and more recently, the deterioration in financial conditions varied across the EMEs, suggesting that, even as the selloff of EME assets was in part driven by common factors, investors nonetheless were also responding to differences in these economies' situations. Brazil, India, Indonesia, South Africa, and Turkey are among the economies that appear to have been the most affected. For example, the currencies of Brazil, India, and Turkey dropped sharply in the middle of last year, whereas the currencies of Korea and Taiwan were more resilient (as shown in figure A). And in recent weeks, although EME currencies sold off broadly, EME bond yields tended to increase the most in economies that saw the largest rises during 2013.

To a considerable extent, investors appear to have been differentiating among EMEs based on their economic vulnerabilities. The scatterplot in figure B shows the link between the degree of relative vulnerability across EMEs as implied by a simple index (plotted on the horizontal axis) and one measure of financial market stress, the percent change in the value of EME currencies against the dollar since the end of April (plotted on the vertical axis). The index is constructed for a sample of 15 EMEs and is based on six indicators: (1) the ratio of the current account balance to gross domestic product (GDP), (2) the ratio of gross government debt to GDP, (3) average annual inflation over the

A. Exchange rates of selected emerging market currencies against the U.S. dollar

Note: Upward movement indicates appreciation of the local currency against the U.S. dollar.
Source: Bloomberg.

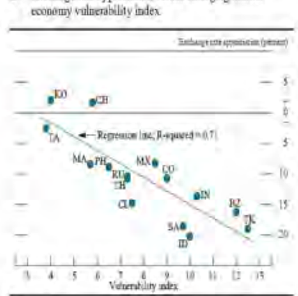
past three years, (4) the change over the past five years of bank credit to the private sector as a share of GDP, (5) the ratio of total external debt to annualized exports, and (6) the ratio of foreign exchange reserves to GDP.[1] By construction, higher values of the index indicate a greater degree of vulnerability. The figure indicates that those economies that appear relatively more vulnerable according to the index also experienced larger currency depreciations. Moreover, the more vulnerable EMEs have also suffered larger increases in government bond yields since late April (not shown). This evidence is consistent with the view that reducing the extent of economic vulnerabilities is important if EMEs are to become more resilient to external shocks, including those emanating from financial developments in the advanced economies.

Indeed, policymakers in many EMEs made sustained efforts, following the crises of the 1990s, to improve their policy frameworks and reduce their vulnerabilities to external funding shocks. These efforts included taming rampant inflation, allowing greater exchange rate flexibility, reducing external indebtedness, and building holdings of foreign exchange reserves. As a result, the degree of vulnerability across economies appears to be materially lower compared with past episodes of widespread EME crisis, even for those economies that currently appear relatively more vulnerable. These improvements should leave many EMEs better positioned than in the past to manage volatility in financial markets.

That said, a number of EMEs continue to harbor significant economic and financial vulnerabilities, and even economies in somewhat stronger positions face the challenge of bolstering investor confidence in a jittery environment. To be sure, in response to bouts of turbulence since last summer, authorities in EMEs have taken steps to stabilize their markets and enhance their resilience. For example, some central banks interrupted their plans to continue easing in the middle of last year, fearing further outflows of capital and additional disruptive currency depreciations that could exacerbate inflationary pressures. Brazil, India, and Turkey, among other EMEs, have raised their policy rates since then. In addition, some EME central banks have intervened in foreign exchange markets to support their currencies. To help stabilize financial markets, Brazil and Indonesia relaxed some of the restrictions on capital inflows that they imposed during the recovery from the global financial crisis, when inflows surged. India and Indonesia also imposed measures, such as import restrictions, to curb their current account deficits.

Nevertheless, beyond these stopgap measures, continued progress implementing monetary, fiscal, and structural reforms will be needed in some EMEs to help remedy fundamental vulnerabilities, put the EMEs on a firmer footing, and make them more resilient to a range of economic shocks. Such reforms will take time, and global investors will be watching their progress closely.

B. Exchange rate appreciation versus emerging market economy vulnerability index



NOTE: Exchange rate appreciation of emerging market currencies against the U.S. dollar is measured from April 30, 2013, to February 6, 2014. BZ is Brazil; CH is China; CL is Chile; CO is Colombia; ID is Indonesia; IN is India; KO is Korea; MA is Malaysia; MX is Mexico; PH is the Philippines; RU is Russia; SA is South Africa; TA is Taiwan; TH is Thailand; TK is Turkey.

SOURCE: CEIC; Haver Analytics; International Monetary Fund (IMF) International Financial Statistics and World Economic Outlook; IMF Fiscal Monitor; Joint BIS-IMF-OECD-WB External Debt Hub; Federal Reserve Board staff calculations.

1. The sample of 15 EMEs comprises Brazil, Chile, China, Colombia, India, Indonesia, Malaysia, Mexico, the Philippines, Russia, South Africa, South Korea, Taiwan, Thailand, and Turkey.

some other AFEs, with much of this decline reflecting falling retail energy and food prices as well as continued economic slack. With inflation low and economic activity still sluggish, monetary policy in the AFEs remains very accommodative. In addition to the ECB's cut of its main refinancing rate in November, the Bank of England issued forward guidance in August that it intends to maintain a highly stimulative policy stance until economic slack has been substantially reduced, while the BOJ continued its aggressive program of asset purchases.

. . . while growth in the emerging market economies moved back up from its softness earlier last year

After slowing earlier last year, economic growth in the EMEs moved back up in the third quarter, reflecting a rebound of Mexican activity from its second-quarter contraction and a pickup in emerging Asia. Recent data suggest that activity in EMEs continued to strengthen in the fourth quarter.

In China, economic growth picked up in the second half of 2013, supported in part by relatively accommodative policies and rapid credit growth earlier in the year. Since the middle of last year, the pace of credit creation has slowed, interbank interest rates have trended up, and the interbank market has experienced bouts of volatility during which interest rates spiked. In mid-November, Chinese leaders unveiled an ambitious reform agenda that aims to enhance the role of markets in the economy, address worrisome imbalances, and improve the prospects for sustainable economic growth.

The step-up in Chinese growth, along with firmer activity in the advanced economies, generally helped support economic activity in other parts of Asia. In Mexico, growth appears to have rebounded in the second half of the year, supported by higher government spending and a pickup in U.S. manufacturing activity. In recent months, Mexico continued to make progress on the government's reform agenda, with its Congress approving fiscal, energy, and financial sector reforms. By contrast, in some EMEs, such as Brazil, India, and Indonesia, shifts in market expectations about the path of U.S. monetary policy appear to have resulted in tightened financial conditions, which weighed on growth over the second half of last year.

Inflation remained subdued in most EMEs, and their central banks generally kept policy rates on hold or, as in Chile, Mexico, and Thailand, cut them to further support growth. In contrast, inflation remained elevated in a few EMEs, such as Brazil, India, Indonesia, and Turkey, due to currency depreciation as well as country-specific factors, including supply bottlenecks and tight labor market conditions in some sectors. In response to higher inflation, central banks in these countries raised rates and, in some cases, intervened in foreign exchange markets to support their currencies.

Part 2
Monetary Policy

In light of the cumulative progress toward maximum employment and the improvement in the outlook for labor market conditions, the Federal Open Market Committee (FOMC) decided to modestly reduce the pace of its asset purchases at its December 2013 and January 2014 meetings. Nonetheless, with unemployment still well above its longer-run normal level and inflation below the Committee's 2 percent objective, the stance of monetary policy remains highly accommodative, with the Federal Reserve continuing to increase the size of its balance sheet, albeit at a reduced pace, and having enhanced its forward guidance with regard to the future path of the federal funds rate.

Through most of last year, the FOMC maintained the current pace of large-scale asset purchases while awaiting more evidence that progress toward its economic objectives would be sustained . . .

Since the onset of the financial crisis and ensuing deep recession, the unemployment rate has remained well above its normal levels and the inflation rate has tended to run at or below the FOMC's 2 percent objective despite the target range for the federal funds rate remaining at its effective lower bound. Accordingly, the strategy of the FOMC during the past several years has been to employ alternative methods of providing additional monetary accommodation and promoting the more rapid achievement of its mandated objectives of maximum employment and price stability. In particular, the FOMC has used large-scale asset purchases and forward guidance regarding the future path of the federal funds rate to put downward pressure on longer-term interest rates.

During most of the second half of 2013, with unemployment still elevated (though declining), and with inflation remaining noticeably below the Committee's 2 percent longer-run objective, the FOMC left in place the key parameters of its monetary policy stance while awaiting further evidence that progress toward its economic objectives would be sustained. Nonetheless, the Committee recognized the cumulative improvement in labor market conditions and therefore believed it important to begin the process of outlining the considerations that would ultimately govern the winding-down of the program of large-scale asset purchases. In his press conference following the June 2013 FOMC meeting, Chairman Bernanke indicated that, if the economy were to evolve broadly in line with the expectations that the Committee held at that time, the FOMC would moderate the pace of purchases later in 2013 and, if economic developments remained broadly consistent with the Committee's expectations, subsequently reduce them in further measured steps. However, the Chairman emphasized that the Committee's purchases were in no way predetermined, and that a decision about reducing the pace of purchases would depend on how economic conditions evolved.[8]

At each of its subsequent meetings prior to December 2013, the Committee judged that the outlook for the economy and the labor market had improved, on net, since the inception of the current asset purchase program, but that it was appropriate to await more evidence that the progress would be sustained before the Committee began adjusting the pace of its purchases. In addition, at the July meeting, the Committee recognized that inflation persistently below its 2 percent objective could pose risks to economic performance.[9] At the September

8. See Board of Governors of the Federal Reserve System (2013), "Transcript of Chairman Bernanke's Press Conference," June 19, www.federalreserve.gov/mediacenter/files/FOMCpresconf20130619.pdf.

9. See Board of Governors of the Federal Reserve System (2013), "Federal Reserve Issues FOMC Statement," press release, July 31, www.federalreserve.gov/newsevents/press/monetary/20130731a.htm.

FOMC meeting, Committee members also expressed concern about near-term fiscal uncertainties and the rapid tightening of financial conditions observed over the summer, which, if sustained, could have slowed improvements in the economy and the labor market.[10] The Committee therefore decided to await more evidence that progress toward its goals would be maintained before adjusting the pace of asset purchases and, in the meantime, continued adding to its holdings of agency mortgage-backed securities (MBS) and longer-term Treasury securities at a pace of $40 billion and $45 billion per month, respectively.

. . . before modestly reducing the pace of asset purchases in light of the cumulative progress toward maximum employment and the improvement in the outlook for labor market conditions

By the time of the December 2013 meeting, most Committee members viewed the cumulative improvement in labor market conditions as meaningful and likely to be sustained. Participants also anticipated that inflation would move back toward 2 percent over time as the economic recovery strengthened and longer-run inflation expectations remained steady. Therefore, most members agreed that the Committee could appropriately begin to slow the pace of its asset purchases. Nonetheless, some members expressed concern about the potential for an unintended tightening of financial conditions if a reduction in the pace of asset purchases was misinterpreted as signaling that the Committee was likely to withdraw policy accommodation more quickly than had been anticipated. Many members therefore judged that the Committee should proceed cautiously in taking its first action to reduce the pace of asset purchases and should indicate that further reductions would be undertaken in measured steps. Members also stressed the need to underscore that the pace of asset purchases was not on a preset course and would remain contingent on the Committee's outlook for the labor market and inflation as well as its assessment of the efficacy and costs of purchases.

Consistent with this approach, the Committee announced at the December meeting that it would reduce the pace of its purchases of agency MBS from $40 billion to $35 billion per month and reduce the pace of its purchases of longer-term Treasury securities from $45 billion to $40 billion per month. The Committee continued to see improvements in economic conditions and the labor market outlook at the January meeting and further reduced the pace of its asset purchases to $30 billion per month for agency MBS and $35 billion per month for longer-term Treasury securities.

While deciding to modestly reduce its pace of purchases, the Committee emphasized that its holdings of longer-term securities were sizable and would still be increasing, which would promote a stronger economic recovery by maintaining downward pressure on longer-term interest rates, supporting mortgage markets, and helping to make broader financial conditions more accommodative. The Committee reiterated that it will continue its asset purchases and employ its other policy tools as appropriate until the outlook for the labor market has improved substantially in a context of price stability. The FOMC also maintained its practices of reinvesting principal payments it receives on agency debt and agency-guaranteed MBS in new agency MBS and of rolling over maturing Treasury securities at auction.

The Committee first kept in place and then reinforced its forward guidance on the path of the federal funds rate

With regard to the federal funds rate, the Committee continued to indicate through the second half of 2013 its expectation that a highly accommodative stance of monetary policy will

10. See Board of Governors of the Federal Reserve System (2013), "Transcript of Chairman Bernanke's Press Conference," September 18, www.federalreserve.gov/mediacenter/files/FOMCpresconf20130918.pdf.

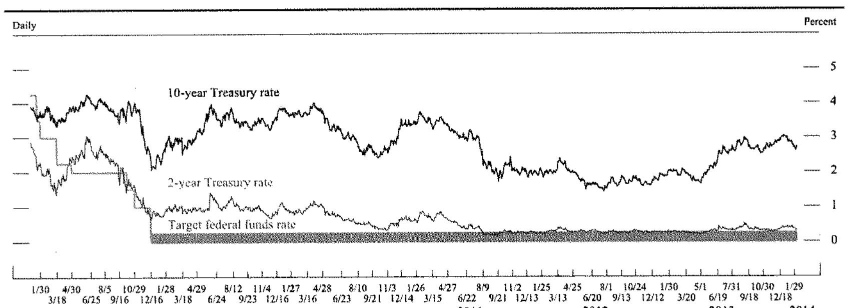
remain appropriate for a considerable time after the asset purchase program ends and the economic recovery strengthens. In particular, the Committee stated that the current exceptionally low target range for the federal funds rate of 0 to ¼ percent will be appropriate at least as long as the unemployment rate remains above 6½ percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, and longer-term inflation expectations continue to be well anchored (figure 41). The Committee emphasized that these criteria are thresholds, not triggers, meaning that crossing a threshold will not lead automatically to an increase in the federal funds rate but will indicate only that it is appropriate for the Committee to consider whether the broader economic outlook justifies such an increase.

In December, with the unemployment rate having moved closer to the 6½ percent threshold, the FOMC decided to provide qualitative guidance to clarify its likely actions during the time after the unemployment threshold is crossed and, in particular, to emphasize its commitment to providing a high level of monetary accommodation for as long as needed to foster its objectives. Specifically, the Committee indicated that in determining how long to maintain a highly accommodative stance of monetary policy, it will consider not only the unemployment rate but also other indicators, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. Further, the Committee stated that, based on these factors, it continues to anticipate that it will likely be appropriate to maintain the current federal funds rate target well past the time that the unemployment rate declines to below 6½ percent, especially if projected inflation continues to run below the Committee's 2 percent longer-run goal. The Committee continued to indicate that when it decides to begin to remove policy accommodation, it will take a balanced approach consistent with its longer-run goals of maximum employment and inflation of 2 percent.

The Committee's large-scale asset purchases led to a significant increase in the size of the Federal Reserve's balance sheet

As a result of the Committee's large-scale asset purchase program, Federal Reserve assets have increased significantly since the middle of last

41. Selected interest rates



NOTE: The 2-year and 10-year Treasury rates are the constant-maturity yields based on the most actively traded securities. The dates on the horizontal axis are those of regularly scheduled Federal Open Market Committee meetings.
SOURCE: Department of the Treasury; Federal Reserve Board.

year (figure 42). The par value of the holdings of U.S. Treasury securities in the System Open Market Account (SOMA) increased $315 billion to $2.2 trillion, and the par value of its holdings of agency debt and MBS increased $308 billion, on net, to $1.5 trillion.[11] As of the end of January 2014, the SOMA's holdings of Treasury and agency securities constituted 55 percent and 39 percent, respectively, of the $4 trillion in total Federal Reserve assets. As a result of these purchases, the size of the overall Federal Reserve balance sheet increased briskly over the second half of the year; on the liability side of the balance sheet, the rise resulted in a further increase in reserve balances.

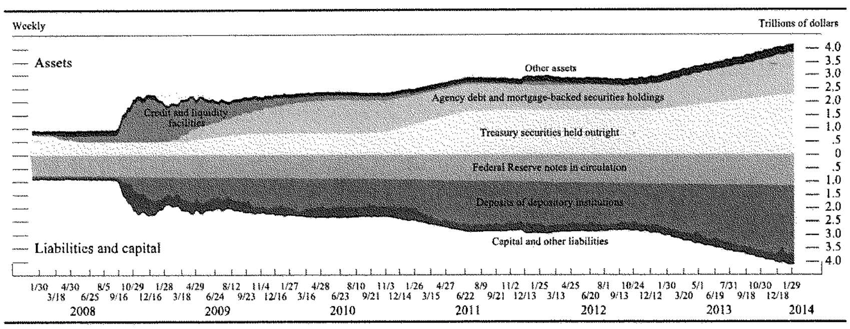
Reflecting the continued improvement in offshore U.S. dollar funding markets, the outstanding amount of dollars provided through the temporary U.S. dollar liquidity swap arrangements with foreign central banks decreased $1 billion, bringing the level close to zero. To reduce uncertainties among market participants as to whether and when these arrangements would be renewed, at the October FOMC meeting the Committee agreed to convert the existing temporary central bank liquidity swap arrangements to standing arrangements with no preset expiration dates, with the intention to review participation in these arrangements annually. These modifications to the liquidity swap arrangements were introduced to help support financial stability and confidence in global funding markets.

Interest income on the SOMA portfolio continued to support a substantial volume of remittances to the U.S. Treasury Department. Preliminary estimates suggest that in 2013 the Federal Reserve provided more than $77 billion of such distributions to the Treasury.[12]

11. The difference between changes in the par value of SOMA holdings and the amount of purchases of securities since the middle of 2013 reflects, in part, lags in settlements.

12. See Board of Governors of the Federal Reserve System (2014), "Reserve Bank Income and Expense Data and Transfers to the Treasury for 2013," press release, January 10, www.federalreserve.gov/newsevents/press/other/20140110a.htm.

42. Federal Reserve assets and liabilities



NOTE: The data extend through February 7, 2014. Credit and liquidity facilities consists of primary, secondary, and seasonal credit; term auction credit; central bank liquidity swaps; support for Maiden Lane, Bear Stearns, and AIG; and other credit facilities, including the Primary Dealer Credit Facility, the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, the Commercial Paper Funding Facility, and the Term Asset-Backed Securities Loan Facility. Other assets includes unamortized premiums and discounts on securities held outright. Other liabilities includes reverse repurchase agreements, the U.S. Treasury General Account, and the U.S. Treasury Supplementary Financing Account. The dates on the horizontal axis are those of regularly scheduled Federal Open Market Committee meetings.
SOURCE: Federal Reserve Board, Statistical Release H.4.1, "Factors Affecting Reserve Balances," www.federalreserve.gov/releases/h41/.

The Federal Reserve continued to test tools that could potentially be used to manage reserves

As part of its ongoing program to ensure the readiness of tools to manage reserves, the Federal Reserve conducted a series of small-scale transactions with eligible counterparties. Since the end of June 2013, the Federal Reserve has conducted four operations for 28-day term deposits under the Term Deposit Facility. The offerings had a fixed-rate format, with individual operations totaling between about $12 billion and $13.5 billion in deposits. In addition, in August 2013, the Federal Reserve conducted six overnight reverse repurchase operations with auction sizes between $1 billion and $5 billion, using Treasury securities and agency MBS as collateral.

Moreover, in support of the Committee's longer-run plan for improvements in the implementation of monetary policy, at the July 2013 FOMC meeting, the Committee discussed the potential for establishing a fixed-rate, full-allotment overnight reverse repurchase agreement (ON RRP) facility as an additional tool for managing money market interest rates. At the September 2013 meeting, the Committee authorized the Open Market Desk to conduct a series of fixed-rate ON RRP operations involving U.S. government securities and securities that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States, for the purpose of assessing operational readiness. A number of meeting participants emphasized that their interest in these operations reflected an ongoing effort to improve the technical execution of policy and did not signal any change in the Committee's views about policy going forward.

From the operations' inception through early February, the fixed rate on the operations has been adjusted gradually within the authorized limits of 0 to 5 basis points set by the FOMC, and the daily counterparty allotment limit has been gradually raised from $500 million to $5 billion. All operations to date have proceeded smoothly. Participation in and usage of ON RRP operations has varied from day to day, in part reflecting changes in the spread between market rates on repurchase agreement transactions and the rate offered in the Federal Reserve's ON RRP operations, as well as quarter-end dynamics. In particular, take-up at these operations surged at year-end and only partly retraced over recent weeks, as rates in markets for Treasury repurchase agreements remained generally low against the backdrop of reduced supply of U.S. Treasury securities in collateral markets. The operations were reauthorized at the January FOMC meeting through January 30, 2015, to allow the Committee to obtain additional information about the potential usefulness of ON RRP operations to affect market interest rates when doing so becomes appropriate.

In addition, the Desk has been developing the capability to conduct agency MBS transactions over FedTrade, its proprietary trading platform. To test this capability, the Desk conducted an exercise consisting of a series of small-value purchase and sale operations of agency MBS via FedTrade, running from November 21, 2013, through January 14, 2014. The operations conducted as part of this exercise did not exceed $500 million in total and were not counted toward the monthly agency MBS purchases that the Desk was conducting at the direction of the FOMC.

Part 3
Summary of Economic Projections

The following material appeared as an addendum to the minutes of the December 17–18, 2013, meeting of the Federal Open Market Committee.

In conjunction with the December 17–18, 2013, Federal Open Market Committee (FOMC) meeting, meeting participants—5 members of the Board of Governors and the 12 presidents of the Federal Reserve Banks, all of whom participated in the deliberations—submitted their assessments of real output growth, the unemployment rate, inflation, and the target federal funds rate for each year from 2013 through 2016 and over the longer run. Each participant's assessment was based on information available at the time of the meeting plus his or her judgment of appropriate monetary policy and assumptions about the factors likely to affect economic outcomes. The longer-run projections represent each participant's judgment of the value to which each variable would be expected to converge, over time, under appropriate monetary policy and in the absence of further shocks to the economy. "Appropriate monetary policy" is defined as the future path of policy that each participant deems most likely to foster outcomes for economic activity and inflation that best satisfy his or her individual interpretation of the Federal Reserve's objectives of maximum employment and stable prices.

Overall, FOMC participants expected, under appropriate monetary policy, that economic growth would pick up, on average, over the next three years, with the unemployment rate declining gradually (table 1 and figure 1). Almost all of the participants projected that inflation, as measured by the annual change in the price index for personal consumption expenditures (PCE), would rise to a level at or slightly below the Committee's 2 percent objective in 2016.

Most participants expected that highly accommodative monetary policy would remain warranted over the next few years to foster progress toward the Federal Reserve's longer-run objectives. As shown in figure 2,

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, December 2013

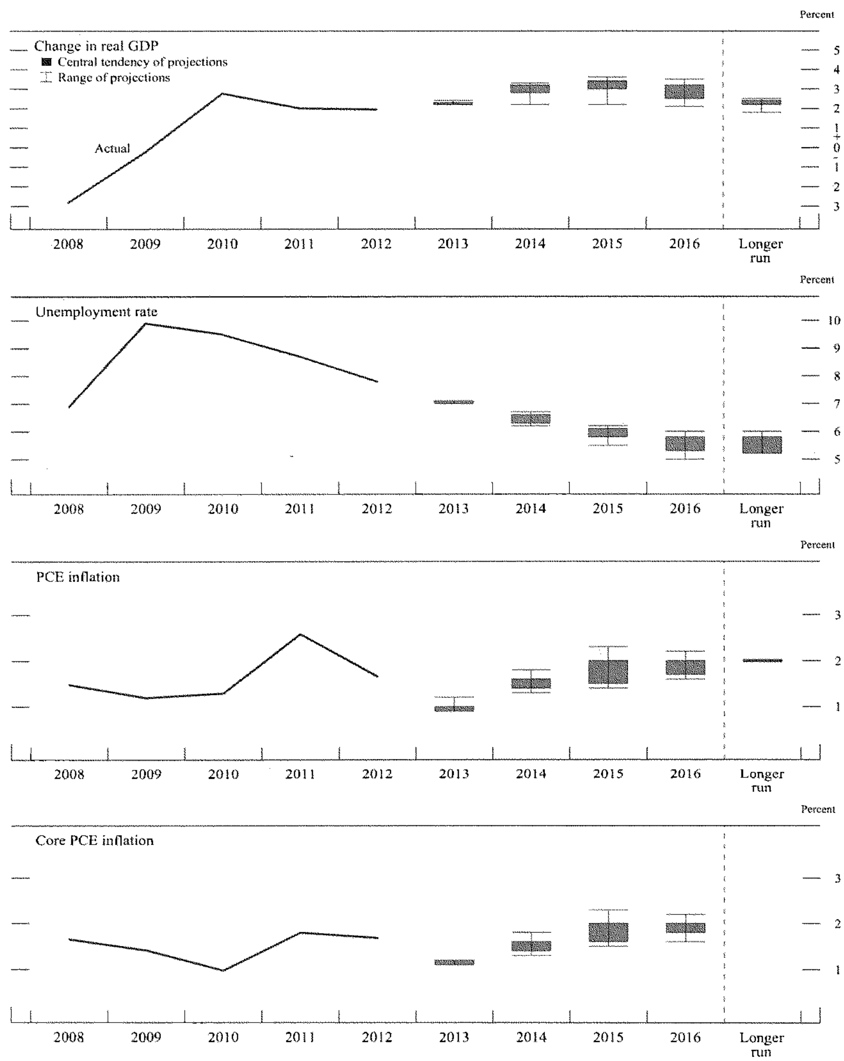
Percent

Variable	Central tendency[1]					Range[2]				
	2013	2014	2015	2016	Longer run	2013	2014	2015	2016	Longer run
Change in real GDP	2.2 to 2.3	2.8 to 3.2	3.0 to 3.4	2.5 to 3.2	2.2 to 2.4	2.2 to 2.4	2.2 to 3.3	2.2 to 3.6	2.1 to 3.5	1.8 to 2.5
September projection	2.0 to 2.3	2.9 to 3.1	3.0 to 3.5	2.5 to 3.3	2.2 to 2.5	1.8 to 2.4	2.2 to 3.3	2.2 to 3.7	2.2 to 3.5	2.1 to 2.5
Unemployment rate	7.0 to 7.1	6.3 to 6.6	5.8 to 6.1	5.3 to 5.8	5.2 to 5.8	7.0 to 7.1	6.2 to 6.7	5.5 to 6.2	5.0 to 6.0	5.2 to 6.0
September projection	7.1 to 7.3	6.4 to 6.8	5.9 to 6.2	5.4 to 5.9	5.2 to 5.8	6.9 to 7.3	6.2 to 6.9	5.3 to 6.3	5.2 to 6.0	5.2 to 6.0
PCE inflation	0.9 to 1.0	1.4 to 1.6	1.5 to 2.0	1.7 to 2.0	2.0	0.9 to 1.2	1.3 to 1.8	1.4 to 2.3	1.6 to 2.2	2.0
September projection	1.1 to 1.2	1.3 to 1.8	1.6 to 2.0	1.7 to 2.0	2.0	1.0 to 1.3	1.2 to 2.0	1.4 to 2.3	1.5 to 2.3	2.0
Core PCE inflation[3]	1.1 to 1.2	1.4 to 1.6	1.6 to 2.0	1.8 to 2.0		1.1 to 1.2	1.3 to 1.8	1.5 to 2.3	1.6 to 2.2	
September projection	1.2 to 1.3	1.5 to 1.7	1.7 to 2.0	1.9 to 2.0		1.2 to 1.4	1.4 to 2.0	1.6 to 2.3	1.7 to 2.3	

Note: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The September projections were made in conjunction with the meeting of the Federal Open Market Committee on September 17–18, 2013.

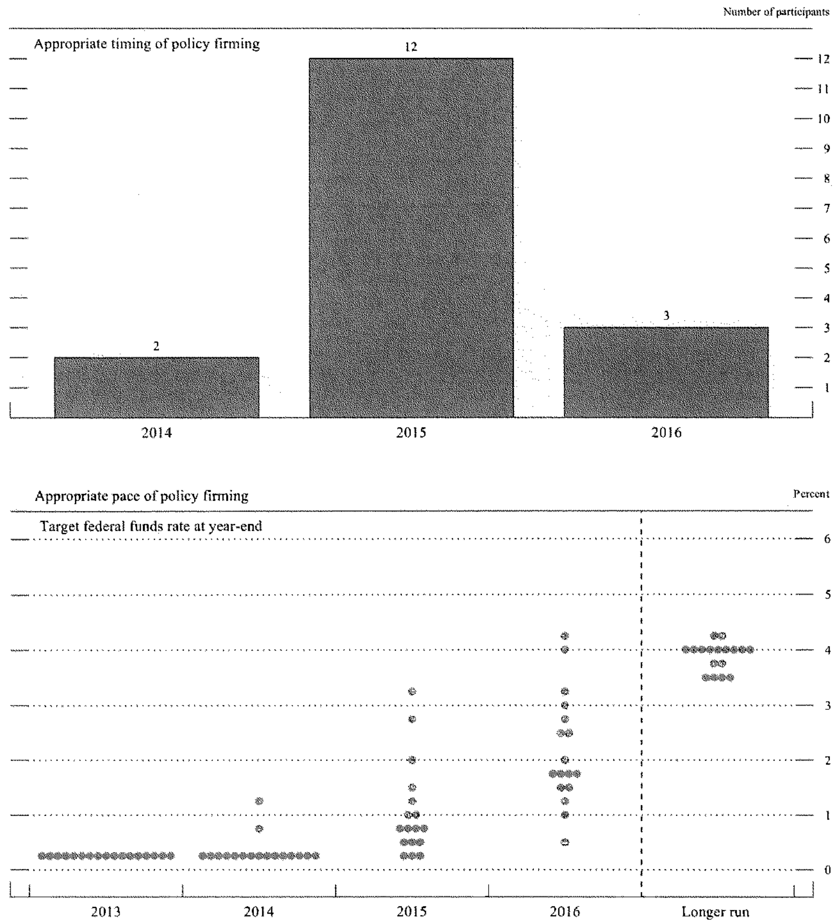
1. The central tendency excludes the three highest and three lowest projections for each variable in each year.
2. The range for a variable in a given year includes all participants' projections, from lowest to highest, for that variable in that year.
3. Longer-run projections for core PCE inflation are not collected.

Figure 1. Central tendencies and ranges of economic projections, 2013–16 and over the longer run



NOTE: Definitions of variables are in the general note to table 1. The data for the actual values of the variables are annual.

Figure 2. Overview of FOMC participants' assessments of appropriate monetary policy



NOTE: In the upper panel, the height of each bar denotes the number of FOMC participants who judge that, under appropriate monetary policy, the first increase in the target federal funds rate from its current range of 0 to ¼ percent will occur in the specified calendar year. In September 2013, the numbers of FOMC participants who judged that the first increase in the target federal funds rate would occur in 2014, 2015, and 2016 were, respectively, 3, 12, and 2. In the lower panel, each shaded circle indicates the value (rounded to the nearest ¼ percentage point) of an individual participant's judgment of the appropriate level of the target federal funds rate at the end of the specified calendar year or over the longer run.

a large majority of participants projected not only that it would be appropriate to wait until 2015 or later before beginning to increase the federal funds rate, but also that it would then be appropriate to raise the target federal funds rate relatively gradually. Most participants viewed their economic projections as broadly consistent with a slowing in the pace of the Committee's purchases of longer-term securities in early 2014 and the completion of the program in the second half of the year.

Most participants saw the uncertainty associated with their outlook for economic growth, the unemployment rate, and inflation as similar to that of the past 20 years. In addition, most participants considered the risks to the outlook for real gross domestic product (GDP), the unemployment rate, and inflation to be broadly balanced, although a few saw the risks to their inflation forecasts as tilted to the downside.

The Outlook for Economic Activity

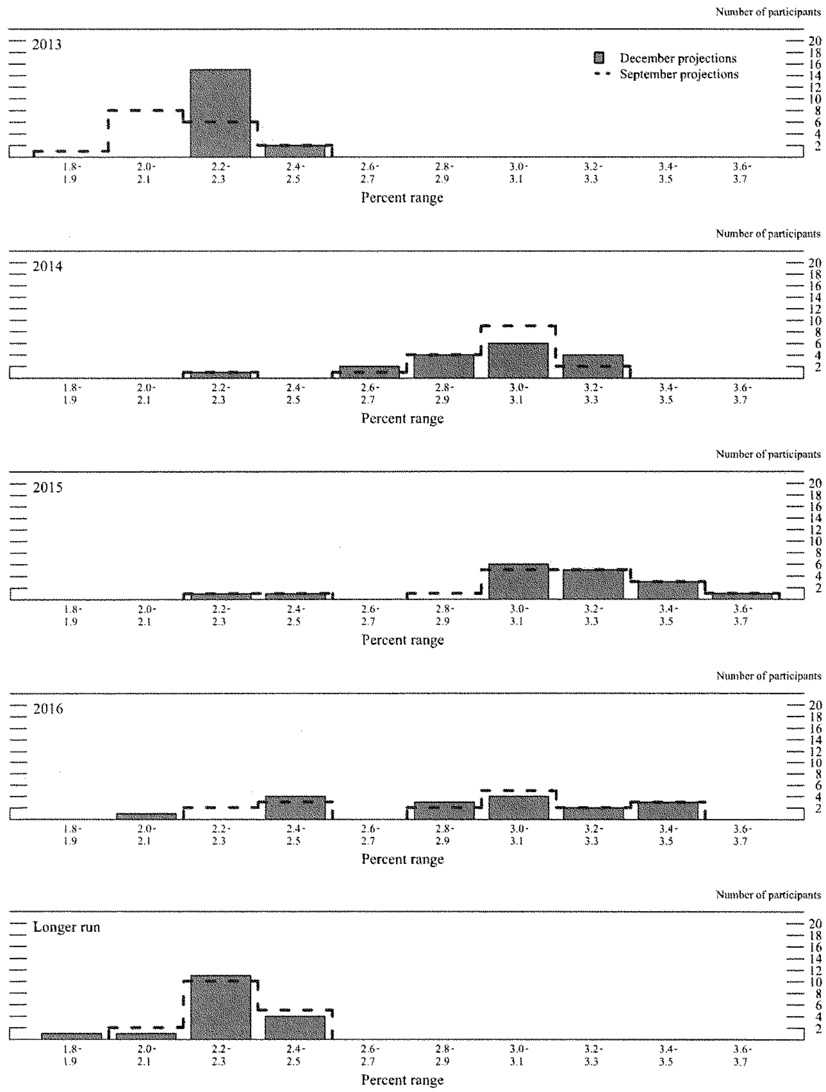
Participants generally projected that, conditional on their individual assumptions about appropriate monetary policy, real GDP growth would accelerate in 2014 from its rate in 2013 and would pick up further in 2015. Subsequently, in 2016, real GDP growth would begin to converge back to a pace that participants saw as the longer-run rate of output growth. Participants pointed to a number of factors contributing to the pickup in growth in the near term, including diminishing restraint from fiscal policy, pent-up demand for consumer and producer durables, rising household net worth, stronger growth abroad, and accommodative monetary policy. A number of participants noted that growth in residential investment had slowed some recently as a result of higher mortgage rates, but they expected growth to strengthen beginning in 2014. Several participants also noted a slowdown in the growth of business investment but saw growth picking up over the forecast horizon, reflecting an expected acceleration in sales.

The central tendencies of participants' projections for real GDP growth were 2.2 to 2.3 percent in 2013, 2.8 to 3.2 percent in 2014, 3.0 to 3.4 percent in 2015, and 2.5 to 3.2 percent in 2016. The central tendency for the longer-run rate of growth of real GDP was 2.2 to 2.4 percent. These projections were little changed from September.

Participants anticipated a gradual decline in the unemployment rate over the projection period. The central tendencies of participants' forecasts for the unemployment rate in the fourth quarter of each year were 7.0 to 7.1 percent in 2013, 6.3 to 6.6 percent in 2014, 5.8 to 6.1 percent in 2015, and 5.3 to 5.8 percent in 2016. Nearly all participants made a modest downward revision to their projected path for the unemployment rate, reflecting its recent larger-than-expected decline; however, the central tendency of participants' estimates of the longer-run normal rate of unemployment that would prevail under appropriate monetary policy and in the absence of further shocks to the economy was unchanged at 5.2 to 5.8 percent. A majority of participants projected that the unemployment rate would be near or slightly above their individual estimates of its longer-run level at the end of 2016.

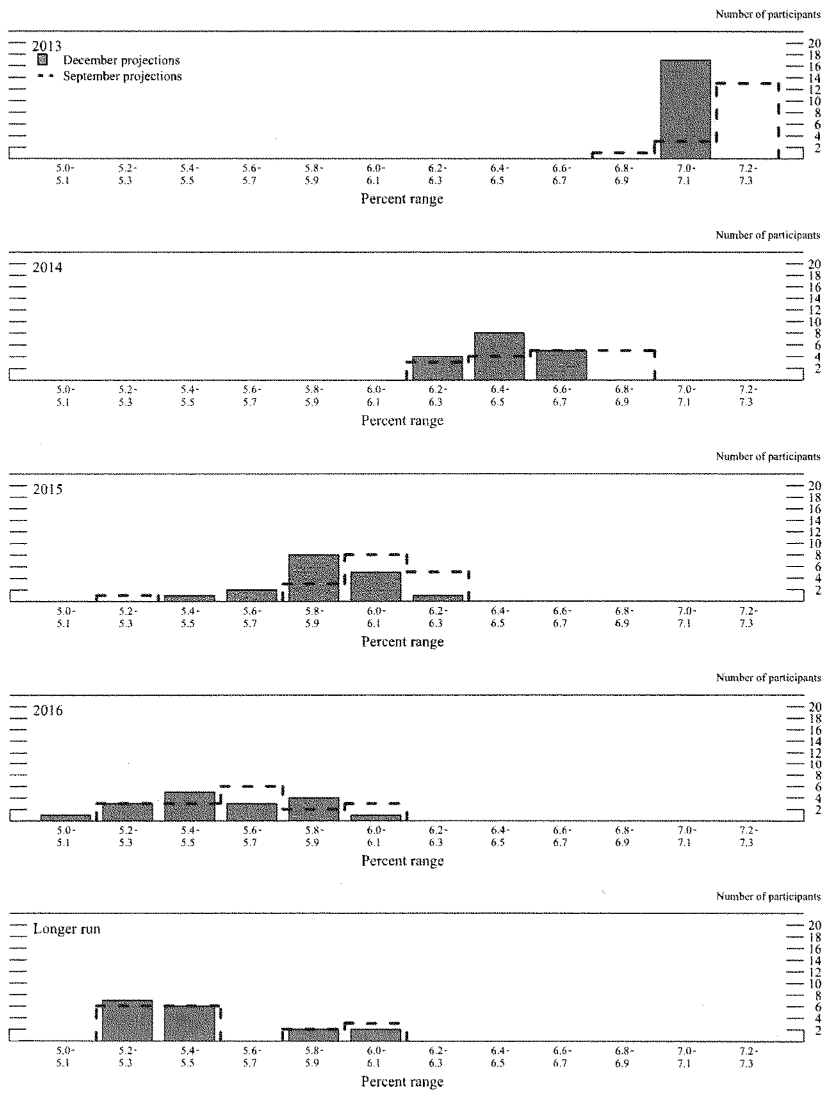
Figures 3.A and 3.B show that participants' views regarding the likely outcomes for real GDP growth and the unemployment rate remained dispersed. The diversity evidently reflected their individual assessments of the likely rate at which the restraint from fiscal policy will diminish and demand for consumer and producer durables will recover, the anticipated path for foreign economic activity, the trajectory for growth in household net worth, and the appropriate path of monetary policy. Relative to September, the dispersions of participants' projections for GDP growth in 2014 and beyond were about unchanged, while dispersions of the projections for the unemployment rate narrowed some through 2015.

Figure 3.A. Distribution of participants' projections for the change in real GDP, 2013–16 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.B. Distribution of participants' projections for the unemployment rate, 2013–16 and over the longer run



NOTE: Definitions of variables are in the general note to table 1.

The Outlook for Inflation

Participants' views on the broad outlook for inflation under the assumption of appropriate monetary policy were marked down a bit in 2013 and 2014 from those in their September projections, but the central tendencies for 2015 and beyond were similar. All participants anticipated that, on average, both headline and core inflation would rise gradually over the next few years, and a large majority of participants expected headline inflation to be at or slightly below the Committee's 2 percent objective in 2016. Specifically, the central tendencies for PCE inflation were 0.9 to 1.0 percent in 2013, 1.4 to 1.6 percent in 2014, 1.5 to 2.0 percent in 2015, and 1.7 to 2.0 percent in 2016. The central tendencies of the forecasts for core inflation were slightly lower over the projection period than in September and broadly similar to those for the headline measure. A number of participants viewed the combination of stable inflation expectations and diminishing resource slack as likely to contribute to a gradual rise of inflation back toward the Committee's longer-run objective.

Figures 3.C and 3.D provide information on the diversity of participants' views about the outlook for inflation. Relative to September, the ranges of participants' projections for overall inflation narrowed some in 2013 and 2014 but remained relatively unchanged thereafter. In 2016, the forecasts for PCE inflation were concentrated near the Committee's longer-run objective, though one participant expected inflation to be ¼ percentage point above the Committee's objective and another three expected it to be almost ½ percentage point below. Similar to the projections for headline inflation, the projections for core inflation also were concentrated near 2 percent in 2016.

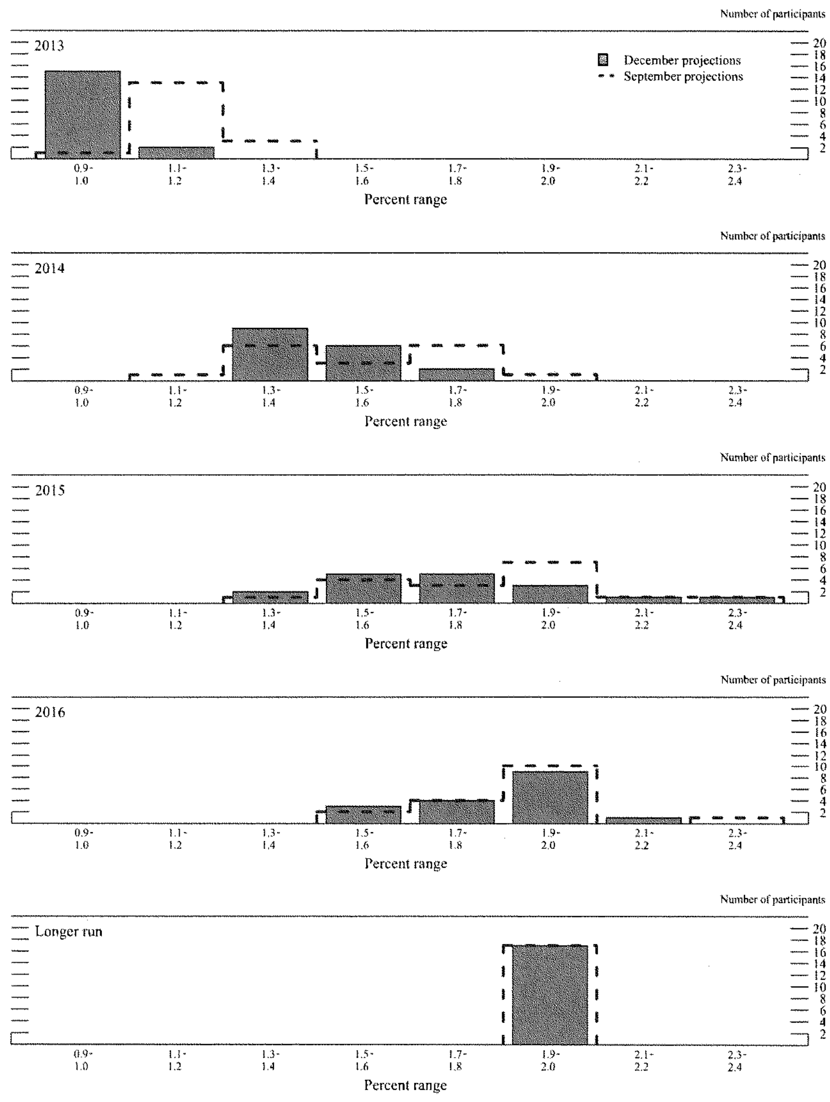
Appropriate Monetary Policy

As indicated in figure 2, most participants judged that exceptionally low levels of the federal funds rate would remain appropriate for the next few years. In particular, 12 participants thought that the first increase in the target federal funds rate would not be warranted until sometime in 2015, and 3 judged that policy firming would likely not be appropriate until 2016. Only 2 participants judged that an increase in the federal funds rate in 2014 would be appropriate.

All participants projected that the unemployment rate would be below the Committee's 6½ percent threshold at the end of the year in which they viewed the initial increase in the federal funds rate to be appropriate, and all but one judged that inflation would be at or below the Committee's longer-run objective. Almost all participants projected that the unemployment rate would remain above their view of its longer-run normal level at the end of the year in which they saw the federal funds rate increasing from the effective lower bound.

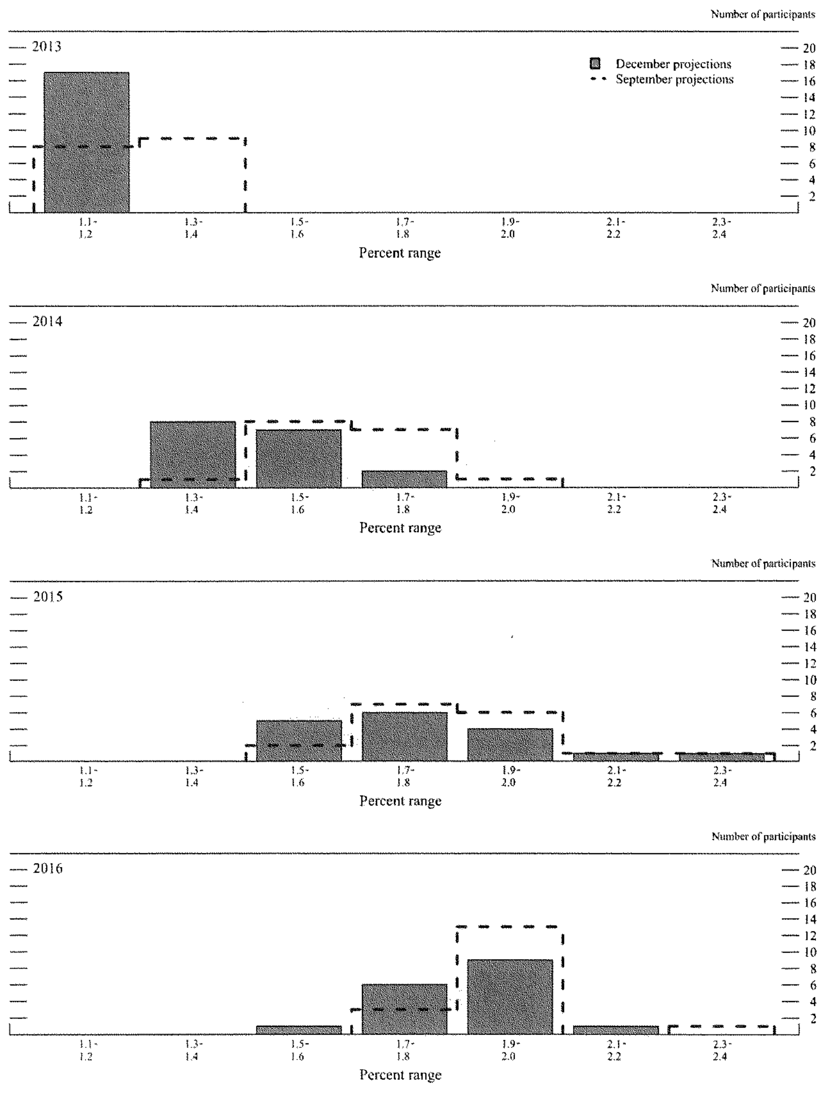
Figure 3.E provides the distribution of participants' judgments regarding the appropriate level of the target federal funds rate at the end of each calendar year from 2013 to 2016 and over the longer run. As noted above, most participants judged that economic conditions would warrant maintaining the current low level of the federal funds rate until 2015. The two participants who saw the federal funds rate leaving the effective lower bound earlier submitted projections for the federal funds rate at the end of 2014 of ¾ percent and 1¼ percent. These two participants' views of the appropriate level of the federal funds rate at the end of 2015 were 2¾ percent and 3¼ percent, while the remainder of participants saw the appropriate level of the funds rate at that time to be 2 percent or lower. On balance, while the dispersion of projections for the value of the federal funds rate in each year changed little since September, the median value of the rate at the end of 2015 and 2016 decreased ¼ percentage point.

Figure 3.C. Distribution of participants' projections for PCE inflation, 2013–16 and over the longer run



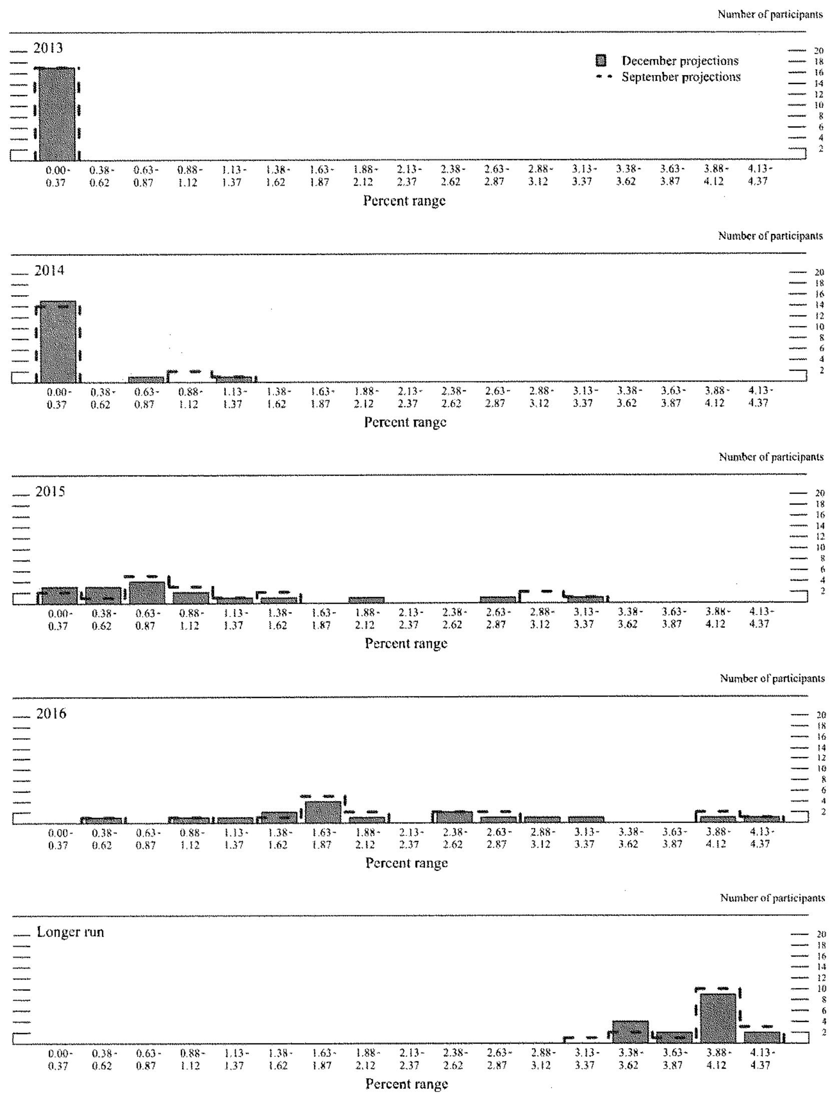
Note: Definitions of variables are in the general note to table 1.

Figure 3.D. Distribution of participants' projections for core PCE inflation, 2013–16



NOTE: Definitions of variables are in the general note to table 1.

Figure 3.E. Distribution of participants' projections for the target federal funds rate, 2013–16 and over the longer run



NOTE: The target federal funds rate is measured as the level of the target rate at the end of the calendar year or in the longer run.

As in September, all of the participants who saw the first tightening in either 2015 or 2016 judged that the appropriate level of the federal funds rate at the end of 2016 would still be below their individual assessments of its expected longer-run value. In contrast, the two participants who saw the first tightening in 2014 believed that the appropriate level of the federal funds rate at the end of 2016 would be at their assessment of its longer-run level, which they judged to be either at or just above 4 percent. Among all participants, estimates of the longer-run target federal funds rate ranged from 3½ to about 4¼ percent, reflecting the Committee's inflation objective of 2 percent and participants' individual judgments about the appropriate longer-run level of the real federal funds rate in the absence of further shocks to the economy.

Participants also described their views regarding the appropriate path of the Federal Reserve's balance sheet. Conditional on their respective economic outlooks, most participants judged that it would likely be appropriate to begin to reduce the pace of the Committee's purchases of longer-term securities in the first quarter of 2014 and to conclude purchases in the second half of the year. A number of participants thought it would be appropriate to end the asset purchase program earlier; in contrast, one participant thought a more accommodative path for asset purchases would be appropriate.

Participants' views of the appropriate path for monetary policy were informed by their judgments on the state of the economy, including the values of the unemployment rate and other labor market indicators that would be consistent with maximum employment, the extent to which the economy was currently falling short of maximum employment, the prospects for inflation to reach the Committee's longer-term objective of 2 percent, and the balance of risks around the outlook. A few participants also mentioned using various monetary policy rules to guide their thinking on the appropriate path for the federal funds rate.

Table 2. Average historical projection error ranges
Percentage points

Variable	2013	2014	2015	2016
Change in real GDP[1]	±0.5	±1.4	±1.8	±1.8
Unemployment rate[1]	±0.1	±0.7	±1.4	±1.8
Total consumer prices[2]	±0.3	±0.9	±1.0	±1.0

NOTE: Error ranges shown are measured as plus or minus the root mean squared error of projections for 1993 through 2012 that were released in the winter by various private and government forecasters. As described in the box "Forecast Uncertainty," under certain assumptions, there is about a 70 percent probability that actual outcomes for real GDP, unemployment, and consumer prices will be in ranges implied by the average size of projection errors made in the past. Further information may be found in David Reifschneider and Peter Tulip (2007), "Gauging the Uncertainty of the Economic Outlook from Historical Forecasting Errors," Finance and Economics Discussion Series 2007-60 (Washington: Board of Governors of the Federal Reserve System, November).

1. Definitions of variables are in the general note to table 1.

2. Measure is the overall consumer price index, the price measure that has been most widely used in government and private economic forecasts. Projection is percent change, fourth quarter of the previous year to the fourth quarter of the year indicated.

Uncertainty and Risks

Nearly all participants judged that the levels of uncertainty about their projections for real GDP growth and unemployment were broadly similar to the norm during the previous 20 years, although three participants continued to see them as higher (figure 4).[13] More participants than in September judged the risks to real GDP growth and the unemployment rate to be broadly balanced. A range of factors was cited as contributing to this change in view, including an improved outlook for global financial and economic conditions, a moderation in geopolitical risks, an upgraded assessment of the prospects for consumption growth, and reduced odds of a fiscal impasse.

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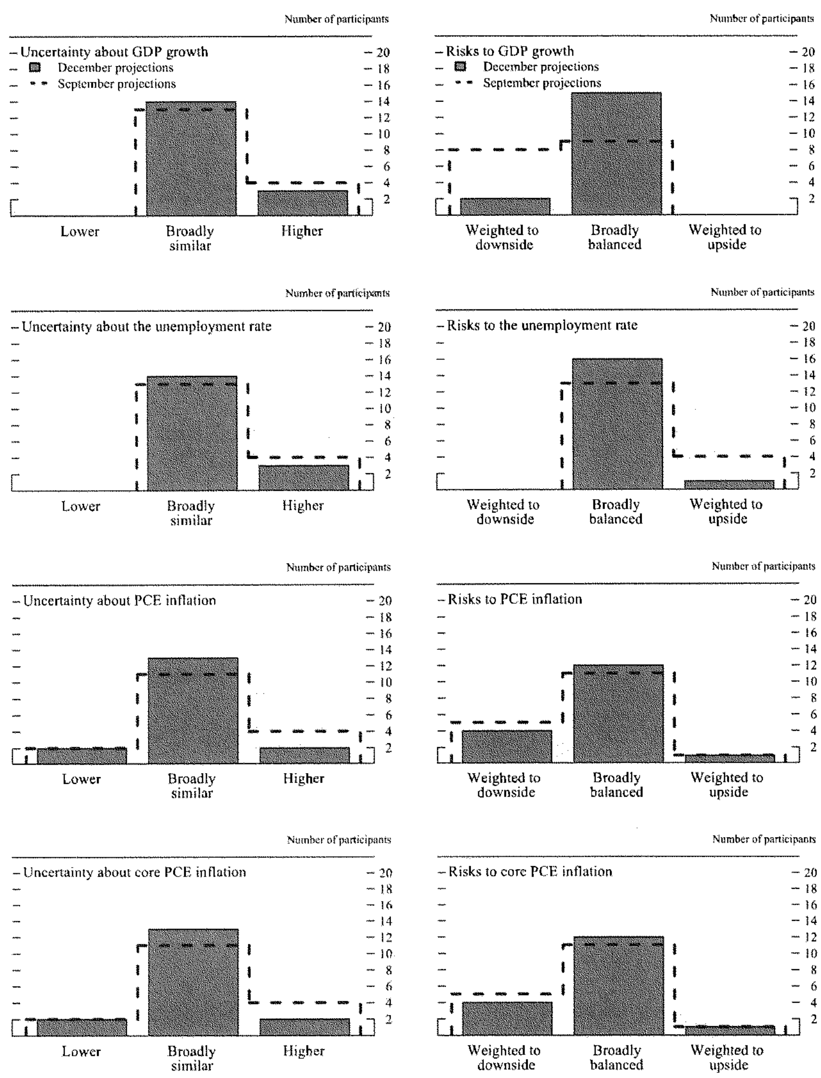
13. Table 2 provides estimates of the forecast uncertainty for the change in real GDP, the unemployment rate, and total consumer price inflation over the period from 1993 through 2012. At the end of this summary, the box "Forecast Uncertainty" discusses the sources and interpretation of uncertainty in the economic forecasts and explains the approach used to assess the uncertainty and risks attending the participants' projections.

Figure 4. Uncertainty and risks in economic projections



NOTE: For definitions of uncertainty and risks in economic projections, see the box "Forecast Uncertainty." Definitions of variables are in the general note to table 1.

Participants reported little change in their assessments of the level of uncertainty and the balance of risks around their forecasts for overall PCE inflation and core inflation. Most participants judged the levels of uncertainty associated with their forecasts for the two inflation measures to be broadly similar to historical norms and the risks to those projections as broadly balanced. Four participants saw the risks to their inflation forecasts as tilted to the downside, reflecting, for example, the possibility that the current low levels of inflation could prove more persistent than anticipated. Conversely, one participant cited upside risks to inflation stemming from uncertainty about the timing and efficacy of the Committee's withdrawal of accommodation.

Forecast Uncertainty

The economic projections provided by the members of the Board of Governors and the presidents of the Federal Reserve Banks inform discussions of monetary policy among policymakers and can aid public understanding of the basis for policy actions. Considerable uncertainty attends these projections, however. The economic and statistical models and relationships used to help produce economic forecasts are necessarily imperfect descriptions of the real world, and the future path of the economy can be affected by myriad unforeseen developments and events. Thus, in setting the stance of monetary policy, participants consider not only what appears to be the most likely economic outcome as embodied in their projections, but also the range of alternative possibilities, the likelihood of their occurring, and the potential costs to the economy should they occur.

Table 2 summarizes the average historical accuracy of a range of forecasts, including those reported in past *Monetary Policy Reports* and those prepared by the Federal Reserve Board's staff in advance of meetings of the Federal Open Market Committee. The projection error ranges shown in the table illustrate the considerable uncertainty associated with economic forecasts. For example, suppose a participant projects that real gross domestic product (GDP) and total consumer prices will rise steadily at annual rates of, respectively, 3 percent and 2 percent. If the uncertainty attending those projections is similar to that experienced in the past and the risks around the projections are broadly balanced, the numbers reported in table 2 would imply a probability of about 70 percent that actual GDP would expand within a range of 2.5 to 3.5 percent in the current year, 1.6 to 4.4 percent in the second year, and 1.2 to 4.8 percent in the third and fourth years. The corresponding 70 percent confidence intervals for overall inflation would be 1.7 to 2.3 percent in the current year, 1.1 to 2.9 percent in the second year, and 1.0 to 3.0 percent in the third and fourth years.

Because current conditions may differ from those that prevailed, on average, over history, participants provide judgments as to whether the uncertainty attached to their projections of each variable is greater than, smaller than, or broadly similar to typical levels of forecast uncertainty in the past, as shown in table 2. Participants also provide judgments as to whether the risks to their projections are weighted to the upside, are weighted to the downside, or are broadly balanced. That is, participants judge whether each variable is more likely to be above or below their projections of the most likely outcome. These judgments about the uncertainty and the risks attending each participant's projections are distinct from the diversity of participants' views about the most likely outcomes. Forecast uncertainty is concerned with the risks associated with a particular projection rather than with divergences across a number of different projections.

As with real activity and inflation, the outlook for the future path of the federal funds rate is subject to considerable uncertainty. This uncertainty arises primarily because each participant's assessment of the appropriate stance of monetary policy depends importantly on the evolution of real activity and inflation over time. If economic conditions evolve in an unexpected manner, then assessments of the appropriate setting of the federal funds rate would change from that point forward.

Abbreviations

AFE	advanced foreign economy
BHC	bank holding company
BFI	business fixed investment
BOJ	Bank of Japan
CDS	credit default swaps
C&I	commercial and industrial
CRE	commercial real estate
Desk	Open Market Desk
ECB	European Central Bank
EME	emerging market economy
FOMC	Federal Open Market Committee; also, the Committee
GDI	gross domestic income
GDP	gross domestic product
MBS	mortgage-backed securities
NIPA	national income and product accounts
ON RRP	overnight reverse repurchase agreement
PCE	personal consumption expenditures
repo	repurchase agreement
SEP	Summary of Economic Projections
SLOOS	Senior Loan Officer Opinion Survey on Bank Lending Practices
SOMA	System Open Market Account
S&P	Standard and Poor's